中国五加科植物資料*

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CONTRIBUTIONS TO THE ARALIACEAE OF CHINA

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我们接受中国科学院中国植物志编辑委员会的委托，从事中国五加科植物的整理和植物志编写工作，在工作过程中得到有关的各科学研究机关和高等院校的大力支持，借到大量蜡叶标本，在这些标本中，发现了不少的新植物和新问题，现在工作告一段落，先将除人参属以外的新植物和新问题整理出来，写成本文。

本文包括中国五加科植物 35 个新种、14 个新变种、5 个新变型、8 个花果补充记载和 2 个新组合，并归并了 8 个旧种和 3 个旧变种。对于鹅掌柴属（*Schefflera*）、树参属（*Dendropanax*）和楤木属（*Aralia*）的分组问题，进行了讨论，并提出了我们的看法。

新植物的模式标本，绝大部分保存于北京中国科学院植物研究所标本室（用"HP"表示），小部分保存在中国科学院华南植物研究所（用"HC"表示）、云南昆明植物研究所（用"HY"表示）、南京植物研究所（用"HN"表示）、西北水土保持生物土壤研究所（用"HW"表示）和中国医学科学院药物研究所（用"HM"表示）的标本室中。

关于中国人参属的分类问题，拟另写专文发表。

通脱木属 Tetrapanax K. Koch

西藏通脱木　新种

Tetrapanax tibetanus Hoo, sp. nov.

Affinis *T. papyrifero* (Hook.) K. Koch qui differt foliis profunde 7—11-palmato-lobatis, paniculis majoribus ramosis, umbellis racemosim dispositis, floribus majoribus.

Arbuscula. Ramuli annotini purpurei longitudinaliter striati dense stellato-tomentosi, tomentis rubideo-albidi, mox glabri. Folia ampla membranacea cordata 12—23 cm longa 15—22 cm lata, apice elobata vel apice leviter trilobata basi cordata, radiate 5—7-nervata, nervis prominentibus, supra sparse tomentosa subtus dense stellato-tomentosa interdum glabrescentia, lobis magnis triangulariter ovatis apice acuminatis serrato-denticulatis; petioli striati brunneo-purpurei dense stellato-tomentosi 4—18 cm longi mox glabri; stipulae membranaceae basi petiolorum adnatae lanceolatae glabrae. Inflorescentiae

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corymboso-paniculatae dense stellato-tomentosae terminales quam axillares majores 8—12 cm longae; umbellae verticillatim vel raro racemosim dispositae 0.8—1 cm diametro 10—20-florae, pedicellis inarticulatis 2—3 mm longis, bracteis lanceolatis 0.8 cm longis, bracteolis longe ovatis 1 mm longis membranaceis brunneis. Alabastra florum alba (e collectoribus); calyx stellato-tomentosus circ. 1 mm longus margine 5-dentatus; petala 5 extus stellato-tomentosa mox glabra 1.2 mm longa; stamina 5; ovarium biloculare, stylis 2 liberis 0.5 mm longis. Fructus ignotus.

Tibet: Kama river (卡马河), alt. 2850 m, in forest, small tree, flowers white, Jun. 8, 1959, Mt. Jolmo Lungma Exped. (珠穆朗玛峯考察队), no. *348* (Type, HP).

通脱木属原来是我国特产的单种属，现在则有了两种，本种和通脱木 [*T. papyriferus* (Hook.) K. Koch] 的区别在于那种植物的叶有 7—11 掌状裂片，圆锥花序较大，伞形花序总状排列，花也较大。

鹅掌柴属 Schefflera J. R. & G. Forst., nom. conserv.

鹅掌柴属是一个包含有 400 种以上的大属，花序类型和花的构造都比较复杂。有由穗状花序、总状花序、伞形花序或头状花序等等不同类型花序所组成的大圆锥花序；花柱有全部离生，或下半部合生上半部离生，或全部都合生成柱状体，也有的完全沒有花柱；子房通常为 5 室，有的 4 室，最多可达 11 室。自从 1756 年 P. Browne 创立了 *Sciodaphyllum* 以来，大约在一个世纪的时间內，这一羣植物被不同的学者所创立的属，竟达到 9 个之多，它们是：*Schefflera* J. R. & G. Forst.、*Heptapleurum* Gaertn.、*Paratropia* DC.、*Agalma* Miq.、*Parapanax* Miq.、*Actinophyllum* Ruiz & Pav.、*Astropanax* Seem.、*Actinomorphe* Miq.、*Brassaia* Endl. 等。1865 年，Seemann 把 *Parapanax* 作为 *Heptapleurum* 的异名，把 *Actinophyllum* 并入 *Sciodaphyllum*[1]；1867 年，Bentham 又把 *Agalma*、*Astropanax*、*Actinomorphe* 等 3 个属并入 *Heptapleurum*，但还保留了 *Sciodaphyllum*、*Schefflera*、*Heptapleurum* 和 *Brassaia* 等 4 个属[2]；1894 年，Harms 更进一步扩大了属的范围，除了合并 Bentham 所保留的这些属以外，同时把 *Parapanax* 也并入本属，并采用 *Schefflera* 作为本属的属名[3]。Harms 的工作，为多数学者所接受，我们也赞同他的意见，因为这些属的分类标准，有的只根据花序类型的不同，有的只根据花柱的离生或合生，有的只根据花瓣的分离或粘合成帽状体，有的只根据地理分布区的不同，都沒有达到分属的条件。

对于本属的种以上的系统分类，至今还沒有一个全面的系统，只有少数学者作过一些工作：C. B. Clarke 用 *Heptapleurum* 作为本属的属名，以花柱为标准，将印度产的种分为 *Agalma*（花柱全部合生成柱状体）及 *Euheptapleurum*（花柱短，不合生成柱状体）等两个亚属，这个方案的最主要缺点是把完全无关的种安排在同一亚属中，例如在他的 Subgen. *Agalma* 中，只根据花柱的相似，将总状花序和伞形花序的种混在同一羣中[4]。事

1) Seemann, B., 1865, Journ. Bot. III, 75 et 265.
2) Bentham, G., 1867, in Bentham & Hooker, Genera Plantarum I, 940—943.
3) Harms, H., 1894, in Engler & Prantl, Nat. Pflanzenfam. III, 8. 17—19 et 35—39.
4) Clarke, C. B., 1879, in J. D. Hooker, Fl. Brit. Ind. II, 727—731.

实上，Miquel 创立 *Agalma* 所根据的模式种 *Agalma rugosum* (Bl.) Miq.（= *Schefflera rugosa* [Bl.] Harms）的花序是总状的，后来 Seemann 在其专著中对这个属加入了 12 个种，其中有 11 个种的花序是伞形的，因为他认为 *Agalma* 的重要性状在于花柱全部合生成一柱状体，而花序不是重要的性质，因此，Seemann 就改变和扩大了 *Agalma* 的范围[1]。从本属的系统发育来看，我们认为将总状花序和伞形花序的种混在一起是不自然的，因为伞形花序的种除了花柱全部合生成柱状体的以外，还有无花柱（只有几个柱头着生于花盘中央）和花柱离生的种，这三羣不同花柱类型的种有直接的亲缘关系，其花柱的演化方向是由无花柱经过离生花柱，最后至合生花柱[2]（本科最原始的属如 *Tupidanthus* 也沒有花柱），拟白背叶鹅掌柴（*S. hypoleucoides* Harms）的花柱中部以下合生，上部离生，可看成是离生花柱至合生花柱的一个过渡类型；总状花序的种只有花柱合生的类型，虽然花序可由总状花序演化成伞形花序，但花柱不可能由合生花柱退化为无花柱或离生花柱。所以，这两羣植物可能是由一个共同的祖先（即具有总状花序和沒有花柱的种）平行发展而来的。Harms 在其专著中将本属分为 *Cephaloschefflera*（花无梗，聚生成头状花序）和 *Euschefflera*（花有梗，聚生成总状花序或伞形花序）等两个组。在 Sect. *Euschefflera* 以下的分类单位，仍以 C. B. Clarke 的方案为蓝本，将印度和马来亚出产的种又分为 *Agalma* (Miq.) Harms、*Parapanax* (Miq.) Harms 和 *Heptapleurum* (Gaertn.) Harms 等三个羣，他沒有指定各羣的等级[3]。在这个方案中，Harms 已注意到花序类型的重要性，将头状花序的种从 C. B. Clarke 的 Subgen. *Euheptapleurum* 中分出来而成立另外一个组是正确的，因为这一羣植物的花柱有全部离生、基部合生上部离生和全部都合生成一短柱等三种类型，它们之间有密切的关系，无论从花序或胚乳（嚼烂状的）来看，都是本属进一步发展的阶段，我们认为这一羣植物和具伞形花序而沒有花柱的种有亲缘关系，在国产的种类中，球序鹅掌柴（*S. glomerulata* Li）的花几无梗，使伞形花序紧缩成簇，可能是这两羣植物的一个过渡类型。在 Sect. *Euschefflera* 中，Harms 同样地将总状花序和伞形花序的种混在同一组中也是不对的。从国产的种类来看，花序在演化的方向上已分化成总状花序、伞形花序和头状花序等三个不同类型，是一个稳定的性质，在划分属以下的分类单位时，是重要性状之一，而且比花柱的性质更重要。所以，我们将总状花序的种从 Harms 的 Sect. *Euschefflera* 中分出来而成立另外一个组。在组以下的分类单位，我们按照花柱的不同类型，分别建立了几个不同的亚组。根据这些前提，我们在 Harms 的基础上，根据我国的材料，对本属的分类从新排列如下：

组 1. **总序鹅掌柴组**　改级新组合

Sect. 1. **Agalma** (Miq.) Tseng & Hoo, st. nov.——*Agalma* Miq. Fl. Ind. Bat. I (1855) 752.

花有梗或无梗，聚生成总状花序或穗状花序；花柱全部合生成柱状体。

Flores pedicellati vel sessiles in racemo vel spica dispositi; styli in columnam omnino connati.

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1) Seemann, B., 1864, Journ. Bot. II, 296.
2) 何景，1961，厦门大学学报，自然科学版 VIII 1, 6—7。
3) Harms, H., 1894, in Engler et Prantl, Nat. Pflanzenfam. III, 8. 36—38.

Typus sectionis: *Schefflera rugosa* (Bl.) Harms

屏边鹅掌柴 *S. pingpienensis* Tseng & Hoo, sp. nov.

多叶鹅掌柴 *S. metcalfiana* Merr. ex Li

海南鹅掌柴 *S. hainanensis* Merr. & Chun

异叶鹅掌柴 *S. diversifoliolata* Li

穗序鹅掌柴 *S. delavayi* (Fr.) Harms

昌都鹅掌柴 *S. wardii* Marq. & Shaw

瑞丽鹅掌柴 *S. shweliensis* W. W. Smith

多脉鹅掌柴 *S. multinervia* Li

灌丛鹅掌柴 *S. dumicola* W. W. Smith

何氏鹅掌柴 *S. hoi* (Dunn) Vig.

台湾鹅掌柴 *S. taiwaniana* (Nakai) Kaneh.

组 2. **伞序鹅掌柴组**

Sect. 2. **Schefflera**

花聚生成伞形花序,再合成圆锥花序;没有花柱,或有花柱。

Inflorescentia paniculata, umbellis secus pedunculos racemosim dispositis; stigmata sessilia vel stylosa.

Typus sectionis: *Schefflera digitata* J. R. & G. Forst.

亚组 1. **无柱鹅掌柴亚组** 改级新组合

Subsect. 1. **Heptapleurum** (Gaertn.) Tseng & Hoo, st. nov.——*Heptapleurum* Gaertn. Fruct. II (1791) 472.

花没有花柱,柱头成小圆点着生于花盘的中央。

Stigmata in medio disco umbonato sessilia.

Typus subsectionis: *Schefflera stellata* (Gaertn.) Harms

细序鹅掌柴 *S. tenuis* Li

云南鹅掌柴 *S. yunnanensis* Li

广西鹅掌柴 *S. kwangsiensis* Merr. ex Li

鹅掌藤 *S. arboricola* Hayata

福建鹅掌柴 *S. fukienensis* Merr.

西南鹅掌柴 *S. khasiana* (C. B. Clarke) Vig.

密脉鹅掌柴 *S. venulosa* (Wight & Arn.) Harms

球序鹅掌柴 *S. glomerulata* Li

亚组 2. **离柱鹅掌柴亚组**

Subsect. 2. **Digitatae** Tseng & Hoo, subsect. nov.

花柱离生,或基部合生而中部以上离生。

Styli distincti vel infra medium connati superne distincti.

Typus subsectionis: *Schefflera digitata* J. R. & G. Forst.

拟白背叶鹅掌柴 *S. hypoleucoides* Harms

亚组 3. **合柱鹅掌柴亚组**　新亚组

Subsect. 3. **Octophyllae** Tseng & Hoo, subsect. nov.

花柱全部合生成柱状体。

Styli omnino in columnam connati.

Typus subsectionis: *Schefflera octophylla* (Lour.) Harms

季川鹅掌柴 *S. yui* Tseng & Hoo, sp. nov.

鹅掌柴 *S. octophylla* (Lour.) Harms

金平鹅掌柴 *S. chinpingensis* Tseng & Hoo, sp. nov.

短序鹅掌柴 *S. bodinieri* (Lév.) Rehd.

小叶鹅掌柴 *S. parvifoliolata* Tseng & Hoo, sp. nov.

大叶鹅掌柴 *S. macrophylla* (Dunn) Vig.

狭叶鸭脚木 *S. angustifoliolata* C. N. Ho

国楣鹅掌柴 *S. fengii* Tseng & Hoo, sp. nov.

星毛鹅掌柴 *S. minutistellata* Merr. ex Li

麻栗坡鹅掌柴 *S. marlipoensis* Tseng & Hoo, sp. nov.

白背叶鹅掌柴 *S. hypoleuca* (Kurz) Harms

凹脉鹅掌柴光叶变种 *S. impressa* (C. B. Clarke) Harms var. *glabrescens* Tseng & Hoo, var. nov.

尾叶鹅掌柴 *S. producta* (Dunn) Vig.

高鹅掌柴 *S. elata* (C. B. Clarke) Harms

红花鹅掌柴 *S. rubriflora* Tseng & Hoo, sp. nov.

多核鹅掌柴 *S. polypyrena* Tseng & Hoo, sp. nov.

粉背叶鸭脚木 *S. insignis* C. N. Ho

组 3. **头序鹅掌柴组**　改级新组合

Sect. 3. **Brassaia** (Endl.) Tseng & Hoo, st. nov.——*Brassaia* Endl. Nov. Strip. Dec. 89.

花无梗或几无梗，聚生成头状花序；花柱离生，或基部合生顶端离生，或完全合生成柱状体。

Flores sessiles vel subsessiles in capitulum condensati, capitulis secus pedunculos racemosim dispositis; styli distincti vel infra medium connati superne distincti vel in columnum brevem connati.

Typus sectionis: *Schefflera actinophylla* (Endl.) Harms (syn. *Brassaia actinophylla* Endl.)

亚组 1. **离苞鹅掌柴亚组**　新改级

Subsect. 1. **Cephaloschefflera** (Harms) Tseng & Hoo, grad. nov.——Sect. *Cephaloschefflera* Harms, in Engler et Prantl, Nat. Pflanzenfam. II. 8 (1894) 36, pro parte.

小苞片离生，脱落；花柱离生，或基部合生顶端离生。

Bracteolae liberae sub floribus minutae caducae; styli distincti vel infra medium con-

nati superne distincti.

Typus subsectionis: *Schefflera cephalotes* (C. B. Clarke) Harms

五柱鹅掌柴 *S. pentagyra* Tseng & Hoo, sp. nov.

中华鹅掌柴 *S. chinensis* (Dunn) Li

亚组 2. **合苞鹅掌柴亚组**

Subsect. 2. **Actinophyllae** Tseng & Hoo, subsect. nov.

小苞片合生成杯状;花柱合生成短的柱状体。

Bracteae sub floribus singulis 4, in capulam dispositae; styli in columnam brevem connati.

Typus subsectionis: *Schefflera actinophylla* (Endl.) Harms

辐叶鹅掌柴 *S. actinophylla* (Endl.) Harms (栽培)。

屏边鹅掌柴 新种

Schefflera pingpienensis Tseng & Hoo, sp. nov.

Proxima *S. diversifoliolatae* Li quae differt foliis 7-foliolatis, foliolis subtus stellato-tomentosis.

Frutex vel arbor parva 2—4 m alta. Folia longe petiolata 12 (interdum 8—9)-foliolata, petiolis teretibus circ. 48 cm longis glabris; foliola subcoriacea vel chartacea elliptico-oblonga vel obovato-oblonga 11—18 cm longa 3.5—5.5 cm lata, apice breviter acuminata basi obtusa margine integra utrinque glabra; costa subtus elevata, nervis lateralibus utrinsecus 8—12 supra conspicuis subtus prominentibus, tertiariis laxe reticulatis supra obscuris vel sub lente subimpressis subtus conspicuis; petioluli inaequilongi medianus 7 cm longus extimi 2 cm longi ceterum longitudine intermedii glabri. Inflorescentia terminalis paniculata 40 cm longa vel ultra laxe ramosa, ramis superioribus brevioribus 3—6 cm longis, inferioribus longioribus ad 20 cm longis ut rhachis parce stellato-pubescentibus; bracteae triangulares 1 mm longae pubescentes; pedicelli 1.5—3 mm longi compressi parce stellato-pubescentes; flores circ. 3 mm longi; calyx campanulatus 1.5 mm longus parce stellato-pubescens 5-dentatus, dentibus triangularibus; petala 5 triangulari-ovata 2 mm longa glabra; stamina 5 petalis breviora, filamentis 1 mm longis; ovarium 5-loculare, stylis in columnam connatis circ. 1 mm longis. Fructus globosus pentagonus 4 mm diam. subglaber, stylorum columna persistenti 1.5 mm longa, stigmate capitato obsolete 5-lobato, disco pentagono leviter convexo.

Yunnan: Ping-pien (屏边), alt. 1600 m in open forest, common, shrub 2 m high, fruits black-brown, Nov. 29, 1953, P. Y. Mao(毛品一) *3226*; same place, alt. 1700 m in dense forest, tree 4 m high, Sept. 22, 1954, K. M. Feng (冯国楣) *4640* (Type, HP); same district, Ta-wei-shan (大围山), in dense forest, shrub 2.5 m high, Jun. 23, 1956, Yunnan Complex. Exped. *3733*; same district, Ta-wei-shan (大围山), alt. 2200 m, flowers white, Oct. 14, 1939, C. W. Wang (王启无) *82469*.

本种叶形和花序与异叶鹅掌柴 (*S. diversifoliolata* Li) 有些相近, 但那种植物的叶只有小叶 7 片,下面疏生星状絨毛。

何氏鹅掌柴

Schefflera hoi (Dunn) Vig. Ann. Sci. Nat. IX Bot. IX (1909) 333; Li, Sargentia II (1942) 30.

何氏鹅掌柴变种

var. **hoi**

(1) **何氏鹅掌柴变型**

f. **hoi**

(2) **急尖叶变型**　新变型

f. **acuta** Tseng & Hoo, f. nov.

Schefflera dumicola auct. non W. W. Sm.: Li, Sargentia II (1942) 30, pro parte.

A forma *hoi* foliis 4-foliolatis apicibus foliolorum acutis differt.

Szechuan: without locality, tree 20 m high, Sept. 1935, C. W. Wang (王启无) *66184* (Type, HP).

本变型和何氏鹅掌柴变型的不同点在于叶有小叶 4 片，小叶先端急尖。

季川鹅掌柴　新种

Schefflera yui Tseng & Hoo, sp. nov.

Schefflera elata auct. non Harms: Li, Sargentia II (1942) 23, pro parte.

Proxima *S. octophyllae* (Lour.) Harms, a qua differt foliolis oblanceolato-oblongis, nervis lateralibus utrinsecus 16 inconspicuis, umbellis 4—8-floris et alabastris robustis.

Arbor circ. 10 m alta. Folia 5-foliolata ("5—9-foliolata" e nota collectoris), petiolis teretibus 13—25 cm longis glabris; foliola coriacea oblanceolato-oblonga 12—18 cm longa 3.5—5 cm lata, apice acuminata vel breviter acuminata basi obtusa margine integra utrinque glabra vel rarissime supra parce strigosa; costa subtus elevata, nervis lateralibus utrinsecus circ. 16 venulisque utrinque obscuris; petioluli 2.5—4.5 cm longi glabri. Inflorescentia tota non visa; rhachis ut videtur brevissima vix 1 cm longa, ramis subverticillatis 12—15 cm longis glabris; umbellae 4—8-florae 1.5—2 cm diam. secus pedunculos in ramo 8—20 racemosim dispositae, bracteis bracteolisque caducissimis non visis, pedunculis 1—1.3 cm longis, pedicellis 5—7 mm longis in sicco rugosis minutissime parcissimeque albo-puberulis vel glabrescentibus; alabastra obovoideo-globosa circ. 4 mm longa; calyx obconicus circ. 2 mm longus margine integer indumento ut in pedicellis; petala 6 triangularia 2 mm longa intus costata glabra; stamina 6 petalis aequilonga vel breviora; ovarium 9-loculare, stylis in columnam connatis striatis circ. 1 mm longis, disco plano. Fructus ignotus.

Yunnan: Taron (独龙) Valley of Kiu-Kiang (球江), alt. 1700 m, among woods, tree about 10 m high, leaflets 5—9, flowers pale green, Jul. 27, 1936, T. T. Yu (俞德浚) *19477* (Type, HP).

本种的花柱粗短，和鹅掌柴 [*S. octophylla* (Lour.) Harms] 有些相近，但本种小叶为倒披针状长圆形，侧脉 16 对，不明显，伞形花序的花较少，花芽较粗大。

金平鹅掌柴　新种

Schefflera chinpingensis Tseng & Hoo, sp. nov.

Species floribus purpureo-rubris, stylis brevioribus, foliolis majoribus, petiolulis brevioribus notabilis.

Frutex 4—5 m altus; ramuli robusti subflavi lenticellati glabri, lenticellis ellipticis vel oblongis. Folia 6-foliolata, petiolis robustis circ. 40 cm longis parce stellato-pubescentibus; foliola ovato-oblonga circ. 30 cm longa 11.5 cm lata apice caudato-acuminata basi rotundata margine integra supra glabra subtus parce stellato-pubescentia; costa utrinque elevata, nervis lateralibus utrinsecus circ. 13 subtus elevatis tertiariis reticulatis utrinque subelevatis; petioluli 1.5—2 cm longi glabri. Inflorescentia terminalis paniculata 28 cm longa, ramis 10—17 cm longis ut rhachis dense stellato-tomentosis; umbellae 10—20-florae, 1.2—1.4 cm latae in ramo 10—20 racemosim dispositae; pedunculi 1.5—2 cm longi dense stellato-pubescentes; pedicelli 1.5—4 mm longi indumento ut in pedunculis; bracteae oblongae 5 mm longae extus parce stellato-pubescentes intus glabrae caducae; bracteolae lineares 1.5 mm longae indumento bractearum; flores purpureo-rubri (e nota ad vivum); alabastra subglobosa circ. 2 mm longa; calyx stellato-pubescens margine fere integer vel 5-dentatus; petala 5 ovato-triangularia 2 mm longa 3-nervosa extus parce stellato-pubescentia vel glabrescentia intus glabra; stamina 4 mm longa; ovarium 5-loculare, stylis in columnam connatis 0.2 mm longis, disco subconvexo. Fructus ignotus.

Yunnan: Chin-ping (金平), Meng-la (勐喇), Tian-tou-shan (田头山), in road-side, shrub 4—5 m high, flowers reddish purple, Apr. 18, 1956, Yunnan Complex. Exped. *498*; same district, Siao-Kang-chang (小钢厂), in open forest, nearly damp place, shrub, Apr. 20, 1956, Yunnan Complex. Exped. *1857* (Type, HP).

本种最显著的特点是花紫红色，花柱粗短，小叶大，小叶柄极短。

小叶鹅掌柴 新种

Schefflera parvifoliolata Tseng & Hoo, sp. nov.

Species inflorescentia brevissima dense ferrugineo-tomentosa, foliolis minoribus distincta; Proxima *S. bodinieri* (Lév.) Rehd. sed foliolis coriaceis lineari-oblongis, apice acutis, inflorescentiis ferrugineo-tomentosis differt.

Frutex 5 m altus; ramuli robusti teretes brunneo-purpurelli glabri nornotini parce ferrugineo-stellato-tomentosi. Folia 7—10-foliolata, petiolis teretibus 8—13 cm longis glabris; foliola coriacea lineari-oblonga medianum circ. 8 cm longum 1.5 cm latum extima circ. 4 cm longa 1 cm lata, apice acuta vel breviter acuminata basi late cuneata vel subrotundata, margine integra vel infra apicem remote serrulata, utrinque glabra; costa supra plana subtus elevata, nervis lateralibus gracilibus utrinsecus 10 utrinque subobscuris, tertiariis obscuris; petioluli 0.5—2.3 cm longi glabri, medianus longissimus. Inflorescentia terminalis laxe paniculata circ. 10 cm longa paucissime ramificata ferrugineo-stellato-tomentosa ramis 2—4 cm longis; umbellae 10—30-florae in ramo 3—4 racemosim dispositae; pedunculi 5—7 mm longi; pedicelli 1—2 mm longi; bracteae triangulares 2—3 mm longae prope rami basin ad 6 mm longae; bracteolae lineari-oblongae 2 mm longae; calyx obconicus dense ferrugineo-tomentosus 2 mm longus 5-dentatus, dentibus late triangulari-

bus; petala 5 triangularia vel triangulari-ovata 3 mm longa extus indumento plus minus evanescente obsita intus glabra; stamina 5, filamentis quam petala aequilongis; ovarium 5-loculare rarissime 4-loculare, stylis in columnam omnino connatis 0.8 mm longis disco convexo. Fructus (immaturus) oblongus 3 mm longus dense ferrugineo-tomentosus, stylorum columna persistenti 2 mm longa, stigmate obsolete 5-lobulato.

Yunnan: Mar-li-po (麻栗坡), alt. 1300—1500 m shrub 5 m high, Nov. 21, 1947, K. M. Feng (冯国楣) *13487* (Type, HP).

本种的特点是圆锥花序短小，密生锈红色星状絨毛，小叶很小。它和短序鹅掌柴[*S. bodinieri* (Lév.) Rehd.] 有些相近，但本种小叶革质，线状长圆形，先端急尖或短渐尖以及花序有锈红色星状絨毛等点容易区别。

国楣鹅掌柴　新种

Schefflera fengii Tseng & Hoo, sp. nov.

Affinis *S. minutistellatae* Merr. sed foliolis subtus fulvido-brunneo-tomentosis, petiolulis fere aequilongis, petalis stellato-pubescentibus differt.

Arbor vel frutex 3—15 m altus. Folia 8-foliolata interdum 3-foliolata, petiolis 6—20 cm longis ut in petiolulis dense ferrugineo-brunneo-tomentosis mox glabrescentibus; foliola chartacea medianum oblongum 13—15 cm longum 5—6 cm latum, extima oblongo-lanceolata 10 cm longa 3 cm lata, apice acuminata basi subrotundata vel rotundata, margine integra vel remote serrulata leviter revoluta, ad costam mediam nervosque supra disperse stellato-pubescentia subtus dense fulvido-brunneo-tomentosa; costa subtus elevata, nervis lateralibus utrinsecus 8—12 arcuatis nervulisque supra impressis subtus prominentibus; petioluli 1—1.5 cm longi. Inflorescentia terminalis paniculata circ. 27 cm longa, ramis ut rhachis dense ferrugineo-tomentosis mox glabrescentibus; umbellae 10—20-florae superiores secus pedunculos pseudo-verticillatae, inferiores in ramo 3—7 racemosim dispositae, raro uniflorae 1—2 mixtae; pedunculi 1—2 cm longi ut bracteae dense ferrugineo-brunneo-tomentosi mox glabrescentes; bracteae triangulares 3 mm longae; pedicelli 2.5 mm longi sub fructu 8 mm longi dense albo-stellato-pubescentes; bracteolae parvae triangulares; calyx albo-stellato-pubescens 2 mm longus, margine obscure 5-dentatus; petala 5 triangulari-ovata vel ovata 2—2.5 mm longa indumento calycis sed mox glabrescentia; stamina 5, filamentis quam petala brevioribus; ovarium 5-loculare interdum 4-loculare, stylis circ. 1 mm longis in columnam connatis. Fructus globosus 5-angularis 4 mm diam. parce stellato-pubescens, stylis persistentibus 2 mm longis, stigmatibus capitatis.

Yunnan: Wen-shan (文山), alt. 2000—2400 m in mixed woods, shrub 3 m high, flowers green-white, Aug. 13, 1947, K. M. Feng (冯国楣) *11231* (Type, HP); Ching-tung (景东), on dry slope, alt. 2700 m tree 15 m high, Oct. 20, 1956, P. I. Chiu (邱炳云) *52746*.

本种极似星毛鹅掌柴 *S. minutistellata* Merr. ex Li，但小叶下面密生黄色星状絨毛，小叶柄几等长，花瓣有毛。

麻栗坡鹅掌柴　新种

Schefflera marlipoensis Tseng & Hoo, sp. nov.

Species habitu *S. insigni* Ho similis diversa foliolis subtus ut inflorescentia ferrugineo-tomentosis umbellis paucifloris; *S. hypoleucae* (Kurz) Harms proxima a qua foliolis oblongo-ellipticis subtus ferrugineo-stellato-pubescentibus non glaucis, petalis glabris differt.

Arbor 8 m alta. Folia longe petiolata 7-foliolata, petiolis teretibus 26 cm longis vel ultra glabris; foliola chartacea oblongo-elliptica 16—24 cm longa 6.5—10.5 cm lata, apice breviter acuminata basi late cuneata, margine integra supra praeter costam interdum puberulam glabra subtus ferrugineo-stellato-pubescentia; costa supra minus subtus plus elevata, nervis lateralibus utrinsecus 9—11 in sicco saepe subtus magis quam supra conspicuis arcuatis juxta marginem evanescentibus, tertiariis obscuris; petioluli inaequilongi medianus 8 cm longus extimi 2 cm longi ceterum longitudine intermedii. Inflorescentia tota non visa; rami circ. 15 cm longi ut rhachis ferrugineo-tomentosi; umbellae 3—5-florae 2—2.5 cm latae in ramo 30 racemosim dispositae; pedunculi 0.8—1.5 cm longi; pedicelli 5—6 mm longi glabrescentes; bracteae triangulares 2.5—3 mm longae ut bracteolae extus dense tomentosae intus glabrae; calyx 4 mm longus margine fere integer vel 5—6-denticulatus glaber; petala 5—6 oblonga 3 mm longa glabra; stamina 5—6 exserta; ovarium 5—6-loculare, stylis 1.5 mm longis in columnam connatis striatis, disco plano. Fructus ignotus.

Yunnan: Mar-li-po (麻栗坡), alt. 1000 m in dense forest, tree 8 m high, flowers green, Feb. 1, 1940, C. W. Wang (王启无) *86474* (Type, HP).

本种形体和粉背叶鸭脚木 *S. insignis* C. N. Ho 相似，区别点在于小叶下面和花序都有铁锈色星状絨毛，伞形花序花很少；也接近白背叶鹅掌柴［*S. hypoleuca* (Kurz) Harms］，区别点在于小叶长圆状椭圆形，下面有铁锈色星状絨毛，决不呈灰白色，花瓣无毛。

凹脉鹅掌柴

Schefflera impressa (C. B. Clarke) Harms, Engler & Prantl, Nat. Pflanzenfam. III, 8 (1894) 38.

(1) **凹脉鹅掌柴变种**

var. **impressa**

产印度。

(2) **光叶变种** 新变种

var. **glabrescens** Tseng & Hoo, var. nov.

Schefflera impressa auct. non (C. B. Clarke) Harms: Li, Sargentia II (1942) 22.

A var. *impressa* foliolis lanceolatis minoribus, subtus glaucis et glabris vel raro parcissime stellato-pubescentibus differt.

Yunnan: Taron Tary (独龙), alt. 2600 m in mixed woods, shrub 5 m high, flowers greenish yellow, Sept. 3, 1937, T. T. Yu (俞德浚) *20118* (Type, HP); same place, Nov. 5, 1938, T. T. Yu *20968*; Shang-pa (上帕), H. T. Tsai (蔡希陶) *54121* et *54478* et *58363*.

Tibet: Tung-ju (东久) to La-ye (腊月) Dec. 21, 1953, P. C. Tsoong (鍾补求) *6239*.

本变种不同于印度原产的变种在于小叶较小，全为披针形，下面灰白色，无毛或有时有极稀疏的星状短柔毛，不是星状絨毛。

红花鹅掌柴　新种

Schefflera rubriflora Tseng & Hoo, sp. nov.

Schefflera octophylla auct. non Harms: Li, Sargentia II (1942) 21, pro parte.

Species habitu *S. octophyllae* (Lour.) Harms similis sed foliolis oblongo-lanceolatis apicibus foliolorum longe acuminatis, floribus rufis, stylis tempore fructus ad 1.5 mm longis differt.

Arbor circ. 7 m alta; ramuli robusti teretes hornotini parce stellato-tomentosi, medullis solidis. Folia longe petiolata 7—8-foliolata, petiolis teretibus 25—35 cm longis glabris; foliola chartacea oblongo-lanceolata, medianum majius 24 cm longum 8 cm latum, extima minora 10 cm longa 3 cm lata ceterum magnitudine intermedia, apice caudato-acuminata acuminis 1.5—2 cm longis leviter falcatis, basi obtusa vel rotundata, margine integra in sicco brunnea utrinque glabra; costa supra plana subtus inferiore elevata antice paulatim plana, nervis lateralibus utrinsecus 7—10 subtus conspicuis tertiariis subobscuris; petioluli inaequilongi medianus 8 cm longus extimi 1.5 cm longi glabri. Inflorescentia terminalis paniculata 30 cm longa vel ultra, ramis inferioribus longioribus circ. 18 cm longis, superioribus paulatim abbreviatis ut rhachis subglabris; umbellae 2 cm latae 10—20-florae, in ultimo ramorum racemosim dispositae; pedunculi 1—2 cm longi ad medium saepe 2-bracteati ut pedicelli subglabri; bracteae ovatae 1—2 mm longae extus pubescentes intus glabrae; pedicelli 5—6 mm longi sub fructu 8 mm longi; bracteolae parvae ovatae indumento bractearum; flores circ. 4 mm longi rufo-straminei (fide coll.) sicco brunneo-rubri; calyx late obconicus 3 mm longus glaber margine subinteger; petala 5 triangularia 3 mm longa intus costata utrinque glabra; stamina 5 petalis longiora, filamentis 4.5 mm longis; ovarium 8—9-loculare, stylis in columnam connatis striatis circ. 1 mm longis, stigmatibus inconspicue 8—9-lobatis. Fructus globosus. 3 mm diam. glaber, stylorum columna 1.5 mm longa, disco plano.

Yunnan: Ban-la-yi-wu (版纳易武), alt. 980 m in ravine woods, flowers pinkish yellow, Oct. 1936, C. W. Wang (王启无) *80111* (Type, HP).

本种形体有些象鹅掌柴 [*S. octophylla* (Lour.) Harms]，但小叶长圆状披針形，先端尾状渐尖，花淡红色，花柱在结实后长 1.5 毫米，显然有区别。

多核鹅掌柴　新种

Schefflera polypyrena Tseng & Hoo, sp. nov.

Planta foliis 5-foliolatis in sicco atro-brunneis, inflorescentiis axillaribus dichotomo-ramosis, floribus 7—11-meris, pedicellis brevioribus, fructibus multicostatis facile distincta; *S. singalangensi* Ridley e Sumatra proxima quae differt (e descriptione) scandentibus epiphyticis, foliolis ellipticis membranaceis majoribus.

Arbor vel frutex 4—10 m altus; ramuli teretes parce lenticellati glabri, medullis solidis. Folia 5-foliolata, petiolis elongatis 19—27 cm longis glabris; foliola chartacea oblonga vel interdum oblongo-elliptica 10—16 cm longa 4.5—6.5 cm lata, apice breviter

acuminata interdum obtusa basi late cuneata vel subrotundata leviter obliqua margine integra supra in sicco atro-brunnea subtus brunnea utrinque glabra; costa nervisque supra plana subtus subelevata, nervis lateralibus utrinsecus 8—11 tertiariis utrinque obscuris; petioluli inaequilongi terminalis 4—5 cm longus extimi 1—1.5 cm longi glabri. Inflorescentia axillaris dichotomo-ramosa, ramis ut rhachis prima griseo-brunneis cortice tenui suberoso transversim fissili tectis nuper furfuraceo deciduis mox nigrescentibus; umbellae 8—10-florae 1.5—2 cm latae secus pedunculos in ramo racemosim dispositae; pedunculi compressi 1.5—2 cm longi; bracteae late triangulares 3—4 mm longae; pedicelli 1—2 mm longi; bracteolae triangulari-ovatae 2 mm longae; alabastra ellipsoidea 6 mm longa; calyx late campanulatus 3 mm longus margine crenulatus; petala 7—10 triangularia 4 mm longa glabra sicco nigrescentia; stamina 7—10 petalis aequilonga, filamentis 4 mm longis basi tumidis apice subulatis; ovarium 7—11-loculare, stylis in columnam connatis 1.5 mm longis, disco convexo. Fructus subglobosus in sicco nigrescens 7—11-costatus 4 mm diametro, pedicello 1—2 mm longo; pyrenae 7—11 compressae.

Yunnan: Ping-pien (屏边), in open forest, tree 8 m high, Aug. 16, 1953, P. Y. Mao (毛品一) *2935* (Type, HP); same place, alt. 800 m in open forest, Nov. 24, 1953, P. Y. Mao *3159*; same place, alt. 1000 m in open forest, tree 10 m high, fruits green, Mar. 16, 1954, P. Y. Mao *3449*; same district, alt. 860 m tree 15 m high, Apr. 13, 1945, P. Y. Mao *3801*; Si-chour (西畴); alt. 1200—1300 m in mixed forest, shrub 4 m high, Oct. 9, 1947, K. M. Feng (冯国楣) *12306*.

本种小叶5片，干时黑棕色，圆錐花序侧生，花7—11出，果实有多稜，果梗粗短等特点，为本属中最独特者。它和印度尼西亚（苏门答腊）产的 *S. singalangensis* Ridley 有些相近，区别点（根据记载）在于那种植物为附生藤本，小叶椭圆形，且较大。

五柱鹅掌柴 新种

Schefflera pentagyra Tseng & Hoo, sp. nov.

Schefflera wangii Li, Sargentia II (1942) 18, pro parte, quoad specim. C. W. Wang *71952*.

Species inflorescentiis capitatis, stylis 5 fere liberis, foliolis dentato-serratis, a speciebus ceteris sinensibus capitulis diversissima. *S. cephalotes* (Clarke) Harms e India similis differt (e descriptione) foliolis majoribus integris, fructibus oblongis 5—8-costatis, discis majoribus sine bracteolis.

Arbor parva 5 m alta. Folia longe petiolata 6—7-foliolata, petiolis teretibus 35—40 cm longis vel ultra glabris; foliola coriacea oblongo-elliptica 17—23 cm longa 8—12 cm lata, apice obtusa vel acuminata basi subrotundata, margine supra medium irregularliter dentato-serrata dentibus remotis inter se circ. 1 cm distantibus utrinque glabra; costa nervisque supra plana subtus valde elevata, nervis lateralibus utrinsecus 8—10, venulis tertiariis reticulatis supra subimpressis subtus elevatis; petioluli 4—6 cm longi glabri. Inflorescentia tota non visa, ramis subtransversis 3—7 cm longis ut rhachis parce tomentosis, capitulis multifructiferis compactis globosis circ. 1.5—2 cm crassis solitariis ad apicem ramorum dispositis, bracteis caducissimis non visis, bracteolis lineari-lanceolatis 3—4 mm

longis extus dense tomentosis intus glabris; flores (e floribus vetustis) 4 mm longi sessiles vel brevi-pedicellati; calyx dense tomentosus 5-dentatus, dentibus triangularibus; petala 5 coriacea triangularia circ. 2 mm longa extus tomentosa intus glabra; stamina 5, filamentis vix 1 mm longis; ovarium 5-loculare, stylis 5 distinctis 1.2 mm longis. Fructus subglobosus leviter 5-costatus 5 mm crassus 4 mm longus glabrescens, stylis persistentibus fere liberis divaricatis, disco circ. 2 mm diametro, pediculis 3 mm longis.

Yunnan: Chang-ning (昌宁), alt. 2700 m in ravine woods, 5 m high, fruits green, Feb. 1936, C. W. Wang (王启无) *71952*(Type, HP).

本种的特点是花密集成头状花序，花柱离生，叶缘有锯齿，和国产本属其他有头状花序的种类容易区别。它和印度产的 *S. cephalotes* (Clarke) Harms 相近，区别点（根据记载）在于那种植物的小叶较大，全缘，果实长圆形且有 5—8 稜，无小苞片，花盘在结实后也较大。

中华鹅掌柴

Schefflera chinensis (Dunn) Li, Sargentia II (1942) 17.

Schefflera wangii Li, l. c. II (1942) 18, pro parte, *syn. nov.*

李惠林氏根据王启无 *72364*（模式标本）及 *71952*（= *Schefflera pentagyra* Tseng & Hoo, sp. nov.）等两号标本创立了 *S. wangii* Li 新种，和本种的区别点在前者小叶 7 片，最宽处在中部以上，边全缘，侧脉较上斜，网脉在下面明显，头状果序单生于侧枝上，较小，直径 1.5—2 厘米，果数较少，后者小叶 6 片，最宽处在中部以下，边全缘或有锯齿，网脉在下面不明显，几个头状果序总状排列在侧枝上，较大，直径 3 厘米，果数较多。根据多数标本观察结果，这种区别不显著，界限也不明。如邱炳云 *53386* 号标本，叶有小叶 7 片，最宽处在中部以下，下面网脉明显，却有几个头状花序总状排列在侧枝上；刘伟心 *123* 号标本，虽然叶有 7 片小叶，头状果序单生，符合 *S. wangii* 的特征，可是头状果序的直径 2.5—3 厘米，果数很多，小叶最宽处在中部；蔡希陶 *59089* 号标本李氏也定为 *S. chinensis*，但小叶的最宽处在中部以上，网脉明显；根据 Dunn 氏原记载，本种的小叶为卵形，但从 Henry *12939* 号模式标本照片来看，中央的小叶为长圆状椭圆形，侧生的小叶卵状椭圆形，大体上和 *S. wangii* 的叶形相符合。所以 *S. wangii* 应合并入本种。

树参属 Dendropanax Decne. & Planch.

本属的种以上的分类单位，中井猛之进 (T. Nakai) 曾根据花序类型分为 *Eugilibertia*（复伞形花序，花 6—8 出）、*Dendropanax*（复伞形花序，花 5 出）和 *Textoria*（单伞形花序，花 5 出，产亚洲）等三个组[1]。后来又把亚洲产的种类恢复了 *Taxtoria* Miq. 属名，以与美洲产的种类区别[2]。这种分类方法显然是不能成立的，因为亚洲产的某些种类，在同一种植物中，既有单伞形花序的，同时也有复伞形花序的，树参[*D. chevalieri* (Vig.) Merr.]便是最好的例子[3]。以国产的种类来看，叶中有无半透明的腺点，花柱的离生或不同程度

1) Nakai, T., 1924, Journ. Arn. Arb V, 1, 22.
2) ———, 1939, Journ. Jap. Bot. XV, 6—11.
3) Li, H. L., 1942, Sargentia II, 38.

的合生，都是本属比较重要的性状，但我们认为叶中有无腺点是应用于区别种类时较方便的一个特征，而在建立自然系统时，花柱的性状则比叶子更为重要。如细梗树参（*D. gracilis* Tseng & Hoo)除了叶有腺点外，其余特征和变叶树参[*D. proteus* (Champ.) Benth.]相似，是亲缘关系很相近的两个种，如果以叶有无腺点作为区分的标准，就要安排在不同的羣中。所以我们选择花柱作为分组的重要性状，将本属分为树参组(Sect. *Dendropanax*)和合柱树参组（Sect. *Columnistylus*）等两个组，可能是比较符合自然的。

组 1. **树参组**

Sect. 1. **Dendropanax**

花柱全部离生，或中部以上或只在顶端离生，在果实上至少顶端离生，直立或反曲。

Styli omnino vel supra medium vel apice liberi, tempore fructus saltem apice liberi erecti vel divaricati.

Typus sectionis: *Dendropanax pendulus* (Swartz) Decne. & Planch.

大果木五加 *D. macrocarpus* C. N. Ho

云南树参 *D. yunnanensis* Tseng & Hoo, sp. nov.

树参 *D. chevalieri* (Vig.) Merr.

星柱树参 *D. stellatus* Li

挤果树参 *D. confertus* Li

胀果树参 *D. inflatus* Li

长萼树参 *D. productus* Li

保亭树参 *D. oligodontus* Merr. & Chun

双室木五加 *D. bilocularis* C. N. Ho

拟小花木五加 *D. parvifloroides* C. N. Ho

广西树参 *D. Kwangsiensis* Li

组 2. **合柱树参组** 新组

Sect. 2. **Columnistylus** Tseng & Hoo, sect. nov.

花柱全部合生成柱状体，在果实上顶端不分离。

Styli in columnam omnino connati, tempore fructus apice non liberi.

Typus sectionis: *Dendropanax brevistylus* Ling

短柱树参 *D. brevistylus* Ling

细梗树参 *D. gracilis* Tseng & Hoo, sp. nov.

海南树参 *D. hainanensis* (Merr. & Chun) Chun

榕叶树参 *D. ficifolius* Tseng & Hoo, sp. nov.

变叶树参 *D. proteus* (Champ.) Benth.

云南树参 新种

Dendropanax yunnanensis Tseng & Hoo, sp. nov.

Dendropanax chevalieri auct. non Merr.: Li, Sargentia II (1942) 39, pro parte.

Species affinis *D. chevalieri* (Vig.) Merr. qui differt foliis ellipticis venulis tertiariis prominentibus; Proximus *D. burmanico* Merr. e Burma, qui differt foliis ellipticis vel

obovato-ellipticis integris apice falcato-acuminatis.

Frutex 3—5 m altus; ramuli teretes striati vix vel parcissime lenticellati glabri. Folia firme chartacea vel subcoriacea glanduloso-punctata, glandulis semipellucidis flavo-rufis, oblongo-obovata vel oblonga 7—14 cm longa 2.5—6 cm lata, apice abrupte acuminata vel breviter acuminata basi obtusa vel subrotundata interdum cuneata, trinervia, margine leviter revoluta integra sed prope apicem obscure paucissime serrulata utrinque glabra, costa nervisque tenuibus, nervis basalibus paulo ultra medium foliorum egressis, lateralibus utrinsecus 3—4 patenti-arcuatis, venulis tertiariis sublaxis supra subconspicuis subtus subdistinctis; petioli 1—6 cm longi glabri. Inflorescentia terminalis umbellata, umbellis solitariis vel 3—4 aggregatis circ. 2 cm diametro 10—20-floris, pedunculo 1—2 cm longo, pedicellis 6—7 cm longis, bracteolis triangularibus 1 mm longis caducis; calyx obconicus circ. 2.5 mm longus margine fere integer; petala triangularia vel triangulari-ovata circ. 2 mm longa glabra; stamina 5 petalis leviter longiora, filamentis circ. 2 mm longis; ovarium 5-loculare, stylis 5 circ. 0.6 mm longis infra medium connatis superne liberis erectis, disco plano corrugato. Fructus (immaturus) subglobosus circ. 3 mm diametro, stylis circ. 1.2 mm longis persistentibus supra medium liberis divaricatis.

Yunnan: Taron (独龙), valley of Kiu-kiang (球江), alt. 1500 m Sept. 7, 1938, T. T. Yu (俞德浚) *20169*; same place, alt. 1400 m in forest, shrub 5 m high, Sept. 21, 1938, T. T. Yu *20382* (Type, HP); Nukiang-Kiukiang divide (怒江、球江分水岭), alt. 1800 m, Oct. 8, 1938, shrub, T. T. Yu *20584*; Kung-shan (贡山), alt. 2300 m Oct. 1935, C. W. Wang (王启无) *67557*、*67562*.

本种和树参 [*D. chevalieri* (Vig.) Merr.] 很接近，但那种植物的叶为椭圆形，网脉显著而隆起；也和缅甸产的缅甸树参 (*D. burmanicus* Merr.) 接近，区别点在于那种植物(根据记载)叶为椭圆形至倒卵状椭圆形，全缘，先端作镰刀状渐尖。

树参

Dendropanax chevalieri (Vig.) Merr. Journ. Arn. Arb. XIX (1938) 59. *Dendropanax chevalieri* (Vig.) Merr. var. *dentigerus* (Harms) Li, Sargentia II (1942) 41, *syn. nov.*

根据李惠林氏的研究，齿叶变种 (var. *dentigerus*) 和原种的区别在于叶缘有细齿牙。但产于广东和广西的本种标本，在同一份标本上有全缘和有细齿牙的两种叶。如李日光 *74*、黄志 *39641* 等号标本，同一份标本上大部分是全缘的，但有的叶缘有细齿牙 1—2 个；反之，广福林区调查队 *1048*、锺济新 *83453* 等号标本，虽然叶缘有细齿牙 1—2 个或 3—5 个，但也有少数是全缘的。所以只根据叶缘有细齿牙这一个性状以与原种区别的齿叶变种(var. *dentigerus*)是不能成立的。

胀果树参

Dendropanax inflatus Li, Sargentia II (1942) 45.

(1) **胀果树参变型** 补充记载

f. **inflatus**

Ad descriptionem floris addenda:

Umbella solitaria terminalis 12—14-flora, pedunculo circ. 5 mm longo, pedicellis circ.

4 mm longis; flores 2.5 mm longi in alabastro; calyx obconicus fere integer vel 5-denticulatus, tubo ovario longiore; petala 5 oblongo-triangularia vel triangularia circ. 2 mm longa glabra; stamina 5; ovarium 5-loculare, stylis circ. 0.5 mm longis fere liberis, disco plano in sicco corrugato.

Kweichow: Tau-shan (独山), Jul. 8, 1959, Li-Po Exped. (荔波队), no. *1021* (HP).

(2) **显脉变型** 新变型

f. **prominens** Tseng & Hoo, f. nov.

A forma *inflato* nervulis reticulatis utrinque prominulis differt.

Yunnan: Si-chour (西畴), alt. 1400—1500 m in dense forest, fruits purple-black, Sept. 24, 1947, K. M. Feng (冯国楣) *12006* (Type, HP).

新变型叶的网脉在上、下两面都微隆起而与胀果树参变型不同。

(3) **多花变型** 新变型

f. **multiflorus** Tseng & Hoo, f. nov.

A forma *prominenti* umbellis 30-floris differt.

Kweichow: An-lung (安龙), Jun. 14, 1960, Y. T. Chang (张永田) et T. S. Chang (张志松) *5310* (Type, HP).

新变型叶的网脉明显与显脉变型相近，但伞形花序有花 30 朵以上。

(4) **圆锥花序变型** 新变型

f. **paniculatus** Tseng & Hoo, f. nov.

A forma *multifloro* inflorescentia paniculata, umbellis 4, 10-floris differt.

Kweichow: An-lung (安龙), Jun. 17, 1960, Y. T. Chang (张永田) & T. S. Chang (张志松) *5446* (Type, HP).

新变型的花序为圆锥花序，具有 4 个伞形花序，各有花约 10 朵。

长萼树参 补充记载

Dendropanax productus Li, Sargentia II (1942) 44.

Ad descriptionem floris addenda: (P. T. Tam *58876*).

Umbella 10—15-flora, pedunculo 6—8 mm longo, pedicellis circ. 5 mm longis glabris; calyx 4 mm longus obscure 5-denticulatus; petala 5 ovata 2 mm longa; stamina 5, antheris 1 mm longis, filamentis 1 mm longis; styli 1 mm longi fere connati.

Kwangtung: Lian-nan (连南), Pei-mang-shang (白芒乡), alt. 895 m in dense forest, shrub 2.5 m high, Aug. 8, 1958, P. T. Tam (谭沛祥) *58876* (HP); Sheh-hsing (始兴), Lo-tsi-shang (罗坝乡), alt. 350 m shrub 3 m high, Aug. 3, 1958, L. Tang (邓良) *6989*; Sin-fong (新丰), Hwang-po-shang (黄坡乡), alt. 650 m in open forest, tree 4—5 m high, Oct. 15, 1958, L. Tang *8132*.

细梗树参 新种

Dendropanax gracilis Tseng & Hoo, sp. nov.

Dendropanax angustilobus auct. non (Hu) Merr.: Li, Sargentia II (1942) 43, pro parte, quoad specim. W. T. Tsang *24235*.

Species habitu *D. protei* (Champ.) Benth. foliis membranaceis crebre glandulosis, pedicellis gracilibus diversus.

Frutex circ. 2 m altus (fide coll.); ramuli teretes brunnei hornotini longitudinaliter striati flavido-brunnei glabri. Folia membranacea glanduloso-punctata, glandulis semi-pellucidis rufo-flavidis, anguste lanceolata 6—11 cm longa 1—2 cm lata, apice longe falcato-acuminata basi late cuneata, margine integra elobata vel profunde trilobata trinervia, costa utrinque elevata, nervis basalibus in foliis trilobatis prominentioribus in eis elobatis subprominentibus, lateralibus utrinsecus 10—14 anastomosantibus utrinque subconspicuis, venulis tertiariis obscuris; petioli 1—7 cm longi glabri. Inflorescentia terminalis umbellata, umbellis solitariis vel geminis 10—12-floris, pedunculo 1.4—2 cm longo, pedicellis gracilibus circ. 1 cm longis; calyx circ. 1 mm longus obscure 5-dentatus; petala staminaque caduca non visa; styli in columnam connati circ. 1 mm longi. Fructus globosus 3 mm diametro.

Kwangsi: Shik-wan-ta-shan (十万大山), Sept. 7, 1934, W. T. Tsang (曾怀德) *24235* (Type, HC).

本种的叶两型，不分裂叶为狭披针形，与变叶树参［*D. proteus* (Champ.) Benth.］极相似，但叶膜质，有半透明红黄色腺点，花梗较纤细。

李惠林氏将曾怀德 *24235* 号标本定名为 *D. angustilobus* (Hu) Merr.，但我们检查了植物研究所保藏的定名为 *D. angustilobus* 的两号标本，一为秦仁昌 *8019* 号（模式标本），一为蒋英 *8894* 号（中国植物图谱第 5 卷第 36 页描述所根据的标本），前者叶无透明腺点，3 裂，和变叶树参无甚差别，应归并入该种，后者植物体及花序都有锈色柔毛，伞形花序总状排列，是柏那参属 (*Brassaiopsis*) 的一种植物［即锈毛柏那参 *B. ferruginea* (Li) Hoo］。曾怀德 *24235* 号标本植物体无毛，叶有红黄色透明腺点，伞形花序单生或 2 个聚生，花梗纤细等特征和上述两号标本迥然不同，故另定新名。

榕叶树参

Dendropanax ficifolius Tseng & Hoo, sp. nov.

Proximus *D. hainanensi* (Merr. & Chun) Chun a quo differt foliis elliptico-oblongis, nervulis prominentibus et umbella solitaria.

Arbor parva 5 m alta glabra. Folia coriacea eglandulosa elliptico-oblonga 9—11 cm longa 2—3.5 cm lata, apice breviter acuminata basi attenuata, trinervia margine integra utrinque glabra, costa nervisque utrinque elevatis, nervis lateralibus robustis utrinsecus 8—9 prope marginem anastomosantibus, nervulis reticulatis prominentibus; petioli 1—3 cm longi glabri. Flores ignoti. Umbella simplex terminalis, pedunculo 2 cm longo. Fructus 5-locularis paucus (7 in specimene) in umbella dispositus subglobosus leviter 5-sulcatus 4 mm diametro purpureus (e nota ad vivum), stylis circ. 1 mm longis omnino connatis, pediculo circ. 7 mm longo.

Yunnan: Ma-kuan (马关), alt. 1000—1500 m, Dec. 6, 1947, K. M. Feng (冯国楣) *13648* (Type, HP).

本种与海南树参［*D. hainanensis* (Merr. & Chun) Chun］有些接近，但叶为椭圆状长圆形，有显著的网脉，伞形花序单生。

变叶树参

Dendropanax proteus (Champ.) Benth. Fl. Hongk. (1861) 136; Li, Sargentia II (1942)

48.

Dendropanax parviflorus (Champ.) Benth. l. c. (1861) 136; Li, l. c. II (1942) 45, *syn. nov.*

Dendropanax acuminatissimus Merr. Philip. Journ. Sci. XIII (1918) 152; Li, l. c. II (1942) 48, *syn. nov.*

Dendropanax angustilobus (Hu) Merr. Brittonia IV (1941) 132; Li, l. c. II (1942) 43, pro parte, *syn. nov.*

本种和 *D. parviflorus* (Champ.) Benth. 最初同时发现于香港。以后在湖南、广西、广东、福建等地陆续采到不少标本。对于这两种植物的区别点,原作者认为本种叶通常有分裂,不分裂叶有主脉1条,花长约3毫米,后一种叶不分裂,有主脉3条,花较小,长約2毫米; 李惠林氏也以叶形和叶的质地作为这两种植物的区别点,即本种叶通常披针形,革质,后一种叶为卵状椭圆形,膜质至紙质。

根据观察多数标本的结果,本种的叶形、质地以及花的大小变化极大: 如陈少卿 *8209* 号标本,虽然叶为卵状椭圆形,有主脉3条,具有 *D. parviflorus* 的特征,但花较大,长达5毫米; 曾怀德 *21316* 号、刘心祈 *24974* 号、*28198* 号等标本的同一枝条上有主脉3条和主脉1条(两条侧生的不明显)的两种叶;李学根 *200089* 号标本,叶革质,椭圆形,有3主脉,叶缘有浅裂,按叶的质地和有分裂两点应划入 *D. proteus*,但叶为椭圆形,有3主脉,又应划入 *D. parviflorus*; 陈少卿 *2644* 号和 *2645* 号标本,采自同一地点,这两号标本的果实和叶的形态大体相似,但前者无分裂叶,被定名为 *D. parviflorus*,后者有分裂叶,被定名为 *D. proteus*。

作者详细比较了 Champion 在香港所采的这两种植物的模式标本照片,发现在 *D. proteus* 的模式标本(Champ. 无号)上也有一个枝条的叶为椭圆形,有3主脉,这种叶和 *D. parviflorus* 的模式标本(Champ. *390*)上的叶沒有什么区别; Bentham 在原记载中也提及 *D. parviflorus* 的创立,只凭一个标本,他自己也有怀疑。根据以上这些理由,作者认为 *D. proteus* 和 *D. parviflorus* 这两种植物的界限不明显,应合并为一种。

E. D. Merrill 根据 Merr. *10817* 号标本发表了 *D. acuminatissimus* 新种,但沒有指出这个新种和 *D. proteus* 的区别点。李惠林氏认为 *D. acuminatissimus* 和 *D. proteus* 的不同点在于前一种的叶为坚紙质至亚革质,不分裂,侧脉10—13对,几明显,伞形花序的花较少(10—15朵),后一种的叶为革质,通常有分裂,侧脉6—10对,不明显,伞形花序的花较多(30—100朵)。虽然我们沒有看到这种植物的模式标本,但根据 E. D. Merrill 的原记载,并对 *D. proteus* 的多数标本与 E. D. Merrill 和李氏定名为 *D. acuminatissimus* 的标本作了仔细的比较,认为这两种植物的区别不显著,界限也不明显,也应合并为一种。因为本种叶的变化很大,质地的厚薄随生长环境而异,而一般较狭长的叶,侧脉数目可增多,较薄的叶侧脉干时也较明显,同时并非每一份标本都有分裂叶。如原 E. D. Merrill 及李氏定名为 *D. acuminatissimus* 的曾怀德 *22847* 号、谭英华 *123* 号等两号标本,也表现了这种特性,曾怀德 *22847* 号标本的叶为坚紙质,侧脉多至16对,上面明显,谭英华 *123* 号标本的叶薄革质,侧脉不明显。值得指出的是这两号标本的叶都是线状披针形,叶缘近先端处有不明显的细齿,果序上有果实30个以上,这些特征和本种(一些具狭长的叶)是

相同的。

关于 *D. angustilobus* (Hu) Merr. 这个学名的合并理由，请参阅本文细梗树参（*D. gracilis* Tseng & Hoo）的讨论。

常春藤属 Hedera Linn.

常春藤

Hedera nepalensis K. Koch var. **sinensis** (Tobl.) Rehd. Journ. Arn. Arb. IV (1923) 250; 陈焕镛，国立中山大学农业植物研究所专刊（Chun, Sunyatsenia）I (1934) 280; Li, Sargentia II (1942) 49.

Hedera helix auctt. *non* Linn.: Hance, Journ. Bot. XX (1882) 6; Franch. Pl. David, II (1888) 67; Forbes et Hemsl. Journ. Linn. Soc. Bot. XXIII (1888) 343; Harms, Bot. Jahrb. XXIX (1900) 487; Diels, Notes Bot. Gard. Edinb. VII (1912) 120; Lév. Fl. Kouytcheou (1914) 34, Cat. Pl. Yun-nan (1915) 11.

Hedera sinensis Tobl. Gatt. Hedera (1912) 80; 鍾心煊，中国科学社研究丛刊（Chung, Mem. Sci. Soc. China）I (1924) 186; Hand.-Mazz. Symb. Sin. VII (1933) 693; 陈嵘，中国树木分类学 (1935) 935.

Hedera himalaica Tobl. var. *sinensis* Tobl. Gatt. Hedera (1912) 79, f. 39—42.

Hedera himalaica auctt. *non* Tobl.: Harms et Rehd., Sarg. Pl. Wils. II (1916) 555; 鍾心煊，同前刊（Chung, l. c.）I (1924) 186.

Hedera robusta Pojark. Notul. Syst. Lining. XIV (1951) 258, f. 1, *syn. nov.*

Hedera potaninii Pojark. l. c. 260, f. 2, *syn. nov.*

Hedera shensiensis Pojark. l. c. 261, f. 3, *syn. nov.*

本变种不育枝上的叶只有 3 裂，和 var. *nepalensis* 每边有 2—5 裂者不同。

本变种花枝和果枝上的叶型、大小、伞形花序的数目和果实的大小变化很大：花枝和果枝上的叶，通常为椭圆状卵形至椭圆状披针形，或多或少偏斜而带菱形，基部阔楔形；也常常有菱状披针形、披针形、线状披针形、长圆形、卵状披针形、卵状椭圆形、卵形、阔卵形、圆卵形的叶，叶基有时为圆形或 1—3 浅裂，甚至有箭形叶(侯学煜等 *14382*,荔波队 *1934*)，这些叶型之间具有过渡性，一个花枝或果枝上也常有两型、三型或甚至四型的叶，所以不能根据叶型的不同将其分为不同的种、变种或变型；例如俞德浚 *4167* 号标本上共有 7 片叶，2 片卵状长圆形叶、2 片卵状椭圆形叶、2 片菱状卵形叶、1 片倒卵形叶。四川、贵州和广西的标本中有些枝条部分的具有大卵圆形叶，江苏和浙江的标本有些具有狭细的披针形叶。叶的大小差异也很大，即如俞德浚 *4167* 号标本，卵状长圆形叶长 7.8 厘米，宽 3 厘米，菱状卵形叶长 14 厘米，宽 10.5 厘米。叶柄长 1.3—14 厘米。不育枝上的叶也往往有变化，通常是三角状卵形或三角状长圆形，全缘或三裂，基部平截形，但也有基部平截形的三角形叶或基部心形的箭形叶。鳞片通常具有 10—20 条肋，稀少于 10 和多于 20。

伞形花序有 5—40 朵花，单生、2—5 个总状排列，有时伞房状排列，稀 10 多个总状排成大圆锥花序。果实红色或黄色，直径 7—13 毫米，果梗长 4—12 毫米。

Pojarkova, I. A. (1951) 根据 Potanin 1893 在中国所采的常春藤标本，定了 *H. robusta*

Pojark. *H. potaninii* Pojark. 和 *H. shensiensis* Pojark. 三个新种，其中 *H. shensiensis* 系在陕西宁強县(宁羌)所采，果枝上的叶菱状披针形，全缘或有些叶具 3—1 个裂片，长 4.5—7 厘米，宽 2—4 (—5) 厘米；不育枝上的叶箭形，基部心形，稀为三角形；伞形花序 3 (—5—7) 个，总状排列，花少数，看来和本变种并无任何差异，和作者所见陕西宁強县标本 [王作宾 *904*，宁強(无采集人) *8034* 等] 的性状一致，因此应作为本变种的异名。其余两个新种，*H. potaninii* Pojark. 和 *H. robusta* Pojark. 初看之下叶形较大，似与习见之本变种不同，但就所发表之原图和赠送北京植物研究所的同原模式标本看来，叶形和大小显然有变化，和本变种间有过渡类型，难于区分；而且 *H. robusta* Pojark. 的同原模式标本只有 1 个单生的伞形花序，并非 6—10 个成伞房状排列，果实是红色而非黑色。*H. potaninii* Pojark. 同原模式果枝标本上的叶，最大的也只长 7.5 厘米，宽 4.8 厘米，不是长 10 厘米和宽 9 厘米。因此 Pojarkova 氏的这两个新种也作为本变种的异名处理。作者观察我国各地所产的常春藤 300 多号标本，由于其多变异而又具有过渡类型，目前还找不出可以划分新种或新变种的界线。

柏那参属 **Brassaiopsis** Decne. & Planch.

组 1. **掌裂叶组**

Sect. 1. **Palmatae** Harms in Engler & Prantl, Nat. Pflanzenfam. III, 8 (1894) 49.

Typus sectionis: *B. fatsioides* Harms

锈毛柏那参 *B. ferruginea* (Li) Hoo, comb. nov.

汉拉柏那参 *B. hainla* (Hamilt.) Seem.

粗毛柏那参 *B. hispida* Seem.

纤齿柏那参 *B. ciliata* Dunn

狭翅柏那参 *B. dumicola* W. W. Smith

阔翅柏那参 *B. palmipes* Forrest ex W. W. Smith

榕叶柏那参 *B. ficifolia* Dunn

金盘叶柏那参 *B. fatsioides* Harms

组 2. **掌复叶组**

Sect. 2. **Brassaiopsis**

Typus sectionis: *B. glomerulata* (Bl.) Regel

三叶柏那参 *B. tripteris* (Lév.) Rehd.

显脉柏那参 *B. phanerophlebia* (Merr. & Chun) C. N. Ho

镇康柏那参 *B. chengkiangensis* Hu

五室柏那参 *B. pentalocula* Hoo, sp. nov.

广西柏那参 *B. kwangsiensis* Hoo, sp. nov.

尖苞柏那参 *B. spinibracteata* Hoo, sp. nov.

栎叶柏那参 *B. quercifolia* Hoo, sp. nov.

细柄柏那参 *B. gracilis* Hand.-Mazz.

瑞丽柏那参 *B. shweliensis* W. W. Smith

柏那参 *B. glomerulata* (Bl.) Regel

柏那参变种 var. *glomerulata*

短梗变种 var. *brevipedicellata* Li

硬叶变种 var. *coriacea* (W. W. Smith) Li

长梗变种 var. *longipedicellata* Li

披针叶柏那参 *B. acuminata* Li

披针叶柏那参变种 var. *acuminata*

多花变种 var. *multiflora* Hoo, var. nov.

锈毛柏那参 新组合

Brassaiopsis ferruginea (Li) Hoo, comb. nov.

Dendropanax ferrugineus Li, Sargentia II (1942) 47, f. 8.

Gilibertia angustiloba Hu, Ic. Pl. Sin. V (1937) 36, t. 236, non Hu, (1930).

本种伞形花序 2—5 个，稀疏地总状排列于长 1—7 厘米的主轴上，子房 2 室（李氏误认为 5 室），花柱合生成柱状体，果实上的花盘远高于萼等点，都说明本种是柏那参属而非树参属。

在树参属中已经说明：胡先骕氏（1930）在安略德树木园杂志上发表的 *Gilibertia angustiloba* Hu 是根据秦仁昌 *8019* 号标本，该号标本实为 *Dendropanax proteus* (Champ.) Benth.，因此不能成立；但（1935）在中国植物图谱 *V* 上所发表的 *Gilibertia angustiloba* Hu 则系根据蒋英 *8894* 号标本而描写，实为本种，李氏亦已列有此号标本。

纤齿柏那参 补充记载

Brassaiopsis ciliata Dunn, Journ. Linn. Soc. Bot. XXXV (1903) 499.

Ad descriptionem floris addenda: (K. M. Feng *12683*).

Inflorescentia terminalis racemoso-paniculata dense albo-tomentosa aculeata, aculeis erectis gracilibus albidis parte basis dilatatis; umbellae multiflorae 3—5 cm diametro; pedunculi 2—5 cm longi dense albo-tomentosi, bracteis lanceolatis circ. 1 cm longis persistentibus; flores albi, pedicellis inarticulatis 1—1.5 cm longis dense albo-tomentosis; calyx tomentosus circ. 2.5 mm longus 5-dentatus, dentibus filiformibus; petala 5 oblongo-ovata glabra circ. 5 mm longa; ovarium biloculare, disco elevato, hemisphaerico, stylis in columnam omnino connatis circ. 1 mm longis.

Kweichow: Hwei-shui (惠水), Oct., Y. Tsiang (蒋英) *4717*.

Yunnan: Ping-pien (屏边), alt. 1500 m, Oct. 1935, C. W. Wang (王启无) *82342*; Mar-li-po (麻栗坡), in forest, Nov. 1947, K. M. Feng (冯国楣) *12683* (HP).

粗毛柏那参 补充记载

Brassaiopsis hispida Seem. Journ. Bot. II (1864) 291.

Ad descriptionem fructus addenda:

Fructus adhuc indescriptus didymo-globosus 8—9 mm longus 6—7 mm latus niger, stylis circ. 2 mm longis, pediculo ad 7 cm longo.

Yunnan: Ping-pien (屏边), alt. 1400 m, H. T. Tsai (蔡希陶) *52564* (HP).

五室柏那参 新种

Brassaiopsis pentalocula Hoo, sp. nov.

Planta habitu similis *B. glomerulatae* (Bl.) Regel quae differt foliolis majoribus, paniculis majoribus pendulis, ovario biloculari, lobis calycis indistinctis, disco altioribus.

Arbor 8 m alta aculeata; ramuli annotini crassi grisei. Folia 4—5-foliolata; foliola coriacea oblonga raro elliptica, mediano majore 11—16 cm longo 5—8 cm lato, lateralibus minoribus, apice acuminata basi rotundata vel late cuneata utrinque ferrugineo-tomentosa mox glabra, margine revoluta integra vel usque remote serrulata, nervis lateralibus utrinsecus 8—10 distinctis, venulis ultimis obscuris vel subconspicuis; petioluli intimi 2—4.5 cm longi, externi 1—1.5 cm longi interdum ferrugineo-tomentosi mox glabri; petioli ad 33 cm longi crassi; stipulae basi petiolorum adnatae parte superiore liberae subulatae 3 mm longae. Panicula terminalis laxa, ramuli paniculae plerumque 3, 8—12.5 cm longi; squamae basiles paniculae deltoideo-ovatae, apice tricuspidatae ferrugineo-tomentosae mox glabrae 1.5 cm longae; umbellae 6—10-florae circ. 2.5 cm diametro, pedunculis 1—4.5 cm longis, bracteis deltoideo-ovatis apice setigeris, ferrugineo-tomentosis 5—7 mm longis; flores 5—6 mm longi, pedicellis 3—7 mm longis dense ferrugineo-tomentosis, bracteolis subulatis dense ferrugineo-tomentosis 1—3 mm longis; calyx 2.5 mm longus ferrugineo-tomentosus, margine 5-dentatus; petala 5 crassa oblongo-ovata extus ferrugineo-tomentosa 3 mm longa; stamina 5, filamentis 2 mm longis, antheris oblongis 1.5 mm longis; ovarium 5- raro 4-loculare, stylis omnino connatis.

Fructus 5- raro 4-sulcatus 7—8 mm longus 8—9 mm latus, disco elevato hemisphaerico, stylis persistentibus 2 mm longis.

Yunnan: Si-chour (西畴), alt. 1300—1500 m in forest, tree 8 m high, Oct. 14, 1947, K. M. Feng (冯国楣) *12443*; same locality, alt. 1500—1600 m, K. M. Feng *11970* (Type, HP); same district, How-tzi-tung (猴子洞), shrub 1 m high, prickly, Z. P. Jien (简焯坡) *702*; Mar-li-po (麻栗坡), in forest, tree 8 m high, Jan. 21, 1940, C. W. Wang (王启无) *86319*; Kwang-nan (广南), alt. 1550 m, C. W. Wang *87895*.

本种子房 5 室,稀 4 室,原应属鹅掌柴属,但因其有刺,果实明显的半下位,和鹅掌柴属不同,柏那参属也常有子房 4—3 室的种,所以归入柏那参属较合理。

本种外形和柏那参 [*B. glomerulata* (Bl.) Regel] 相似,但那种植物的小叶较大,圆锥花序较大较密且下垂,子房 2 室,果实上的萼齿不明显,花盘更隆起等点不同。

广西柏那参 新种

Brassaiopsis kwangsiensis Hoo, sp. nov.

Proxima *B. gracili* Hand.-Mazz. sed petiolulis longioribus, foliolis chartaceis glabris, ovario tetraloculari differt; *B. acuminatae* Li similis, a quo differt foliolis glabris, umbellis multifloris, pedicellis brevioribus, ovario tetraloculari.

Arbor parva 3 m alta, ramuli crassi luteo-brunnei glabri. Folia 6—8-foliolata; foliola chartacea oblongo-lanceolata 12—20 cm longa 3—6 cm lata, apice longe acuminata basi late cuneata vel rotunda, margine integra vel interdum remote denticulata glabra, nervis lateralibus utrinsecus 10—15 distinctis elevatis, venulis ultimis inconspicuis, petio-

lulis glabris 1.5—6.5 cm longis; petioli ad 32 cm longi glabri basi crassi. Inflorescentia terminalis laxe paniculata 7 cm longa 10 cm lata albo-tomentosa, umbellis 30—40-floris 1.5—2.5 cm diametro, rhachidibus pedunculisque brevibus, pedicellis inarticulatis 3—4 mm longis, bracteis bracteolisque minutis 1.2—2 mm longis; flores 4.5—5 mm longi; calyx albo-tomentosus circ. 2.5 mm longus, margine 5-dentatus, dentibus triangularibus apice obtusis circ. 0.6 mm longis; petala 5 glabra lanceolata 3 mm longa dimidio superiore viridia eo inferiore purpurescentia; stamina 5 circ. 4 mm longa, filamentis 3 mm longis; ovarium tetraloculare, stylis omnino connatis. Fructus oblongo-ovoideus 3.5 mm longus immaturus, stylis persistentibus omnino connatis circ. 2 mm longis.

Kwangsi: Ling-lo (凌乐), Tsien-lung-shan (青龙山), in open forest, alt. 1280 m, tree 3 m high, petal green at upper part, purple at lower part, Dec. 23, 1955, T. C. Chang (张肇骞) *10559* (Type, HC).

Kweichow: Yin-kiang (印江), Fan-ching-shan (梵淨山), in valley, alt. 400—500 m, Dec. 23, 1930, Y. Tsiang (蒋英) *7809*.

本种和细柄柏那参 (*B. gracilis* Hand.-Mazz.) 相近，但本种的小叶紙质，无毛，小叶柄較长，子房 4 室。又和披针叶柏那参 (*B. acuminata* Li) 相近，但本种小叶无毛，伞形花序的花数較多，花梗較短，子房 4 室。

尖苞柏那参 新种

Brassaiopsis spinibracteata Hoo, sp. nov.

Schefflera producta auct. non Vig.: Li, Sargentia II (1942) 23, pro parte.

Ex affinitate *B. acuminatae* Li et *B. quercifoliae* Hoo, a quibus rhachidibus rhachillisque albo-tomentosis, bracteis apice spinulosis valde distincta.

Frutex erectus vel arbuscula 1.2—3 m alta, trunco brunneo, ramulis griseis paucissime aculeatis, aculeis conicis. Folia petiolata; petioli graciles glabri 19—29 cm longi; stipulae basi petiolarum adnatae superiore liberae; foliola 7 oblonga vel elliptica 10—13.5 cm longa 3.5—5 cm lata, apice acuminata vel caudata basi rotunda vel late cuneata glabra margine serrulata infra medium integra, nervis lateralibus utrinsecus 8 distinctis, venulis tertiariis supra impressis subtus elevatis conspicuis, petiolulis glabris 0.5—3 cm longis lateralibus brevioribus. Panicula terminalis, squamis basalibus ovatis 1 cm longis dense albo-tomentosis apice tricuspidato-spinulis, ramulis 10—12 albo-tomentosis mox glabris 1.8—2.5 cm longis; umbellae solitariae terminales vel 2—3 racemosim dispositae, pedunculo albo-tomentoso 0.9—1.5 cm longo, bracteis paniculae superioris late ovatis apice longe spinulosis extus albo-tomentosis, bracteis paniculae inferioris tricuspidato-spinulosis, pedicellis inarticulatis dense albo-tomentosis 2.5 mm longis, bracteolis oblongo-ovatis extus dense albo-tomentosis circ. 2 mm longis; calyx albo-tomentosus circ. 2 mm longus margine 5-dentatus, dentibus triangularibus; petala 5, 3—4 mm longa; stamina 5, filamentis filiformibus 2.5 mm longis, antheris oblongis brunneis 2 mm longis; ovarium triloculare, stylis omnino connatis circ. 0.8 mm longis. Fructus immaturus globosus 4—5 mm diametro, stylis persistentibus 1.2 mm longis, pediculis 8—10 mm longis.

Kwangsi: Lung-ling (隆林), Ke-chang (克长), alt. 1100 m, shrub 1.2 m high, Nov. 12, 1957, Geobot.

Exped. (华南植物所地植物组) no. *4983* (Type, HC).

Kweichow: Lang-dai (郎岱), shrub 1.5 m high, flowers rose-white, Nov. 4, 1930, Y. Tsiang (蒋英) *9519*; Tsch-heng (册亨), Liu-ka-tung (陆家洞), alt. 1500 m, tree 3 m high, Sept. 2, 1958, T. Y. Cheo (曹子余) *460*.

本种小枝明显的有刺，子房3室，并非鹅掌柴属。与近缘种披针叶柏那参(*B. acuminatae* Li)及栎叶柏那参(*B. quercifoliae* Hoo)的区别点在于花序的主轴及分枝有白色絨毛，苞片先端有长刺尖。

栎叶柏那参 新种

Brassaiopsis quercifolia Hoo, sp. nov.

A *B. gracili* Hand.-Mazz. et *B. acuminata* Li foliolis glabris, basi rotundatis marginibus argute serratis, petiolulis longioribus, fructu ellipsoideo differt.

Arbor 4 m alta; ramuli cinereo-brunnei cortice aculeati, aculeis paucis conicis. Folia petiolata; petioli 9—20 cm longi glabri basi dilatati; foliola 5—7 subcoriacea oblonga 10—15 cm longa 3.5—4 cm lata glabra, apice longe acuminata basi rotunda margine argute serrata, nervis lateralibus utrinsecus 9—12 elevatis distinctis, venulis tertiariis subconspicuis vel indistinctis; petioluli 1.5—3 cm longi glabri. Paniculae terminales laxe racemosae ad 35 cm longae rubro-ferrugineo-tomentosae, ramulis circ. 15 apice umbellam solitariam gerentibus 2.5—6 cm longis, pedunculo 2—6 cm longo, bracteis ovatis rubro-ferrugineo-tomentosis 4—8 cm longis, bracteolis triangulari-ovatis 1 mm longis; flores ignoti. Fructus immaturus ellipsoideus 9 mm longus 4 mm latus bilocularis, calycis lobis persistentibus triangularibus rubro-ferrugineo-tomentosis 1 mm longis, stylis omnino connatis circ. 2 mm longis, pediculis rubro-ferrugineo-tomentosis 6—8 mm longis.

Kwangsi: Yang-so (阳朔), Ta-shui-tien-tsua (大水田村), beside Ta-su-ho (大苏河), in forest, tree 4 m high, Jan. 28, 1956, C. F. Tan & class (覃灏富等) *35* (Type, HC).

本种与细柄柏那参(*B. gracilis* Hand.-Mazz.)和披针叶柏那参(*B. acuminata* Li)相近，区别点在于小叶无毛，基部圆形，边缘有锐锯齿，小叶柄较长，果实椭圆形。

细柄柏那参 补充记载

Brassaiopsis gracilis Hand.-Mazz. Sinensia III (1933) 197.

Ad descriptionem floris addenda: (T. S. Chang & Y. T. Chang *8644*).

Panicula pauciramosa; umbellae racemosim vel verticillatim dispositae circ. 3 cm diametro multiflorae; pedunculi dense ferrugineo-tomentosi 4.5—8 cm longi, bracteis deltoideis dense ferrugineo-tomentosis 6—7 mm longis; pedicelli dense ferrugineo-tomentosi 1 cm longi; flores virides; calyx glaber 2 mm longus margine 5-dentatus subdistinctus; petala 5 deltoidea circ. 2.8 mm longa; stamina 5, filamentis 1.5 mm longis, antheris oblongis albis 1.5 mm longis; ovarium biloculare, stylis 1.2 mm longis.

Kweichow: Hsing-ran (兴仁), Tien-tou (点斗), alt. 1300 m, Aug. 27, 1960, T. S. Chang (张志松) & Y. T. Chang (张永田) *8644* (HC); same district, Lung-chang (龙場), alt. 1100 m, Aug. 21, 1960, T. S. Chang & Y. T. Chang *8747*.

披针叶柏那参

Brassaiopsis acuminata Li, Sargentia II (1942) 57.

（1）**披针叶柏那参变种**

var. **acuminata**

（2）**多花变种**　新变种

var. **multiflora** Hoo, var. nov.

Brassaiopsis acuminata auct. non Li: Li, Sargentia II (1942) 57, pro parte.

A var. *acuminata* foliolis oblongo-ellipticis basi subrotundatis, umbellis multifloris differt.

Kweichow: Tu-yun (都匀), alt. 500 m in forest, tree with prickles, 7 m high, Sept. 9, 1930, Y. Tsiang (蔣英) *7046* (Type, HC); Ping-tang (平塘), alt. 350 m, shrub 4 m high, Sept. 4, 1930, Y. Tsiang *7110*.

本变种和披针叶柏那参变种不同者在小叶长圆状椭圆形，基部几圆形，伞形花序有多数花。

五加属 Acanthopanax Miq.

H. Harms 是研究本属分组的第一人[1,2]，中井猛之进(T. Nakai)[3]除了恢复 Maximowicz 氏所创立的离核属（*Eleutherococcus* Marim.）外并把 Harms 氏的吳茱萸五加组（Sect. *Evodiopanax* Harms）自本属分出，提升为一个独立的属；又把花椒五加组（Sect. *Zanthoxylopanax* Harms）和五加组（Sect. *Euacanthopanax* Harms）中具有 2 花柱的种合并成立一个新组（Sect. *Orthacanthopanax* Nakai），五加组中具有 5 个分离花柱的种，并入离核属中。中井的工作看来意义不大，因为(1)离核组和吳茱萸五加组仅仅种子的形态略有不同，似乎还未达另立一属的条件，吳茱萸五加组萼无齿也不能作为另立一属的特征，因本属其他的种，也有萼无齿或几无齿的；(2)五加组中的 2 花柱种和 5 花柱种是不能分开的，有的种（如 *A. verticillatus* Hoo）具有 2—5 个分离花柱。李惠林氏[4]虽认为本属的分类有重新研究的必要，在他的“中国五加科”一书中，除刺楸独立为属外，仍然采用 Harms 的系统。就国产的种看来，我们也认为 Harms 的系统是适用的，Harms 对本属各组的次序安排不能表明进化程序，应该重新排列：五加组是本属中的基本类型，一方面向离核组进化，一方面向花椒五加组和头序五加组（Sect. *Cephalopanax* Harms）进化。短轴组（Sect. *Sciadophylloides* Harms）、吳茱萸五加组和五加组起源于共同的祖先，它们的各个种，沒有直接联系。

组 1. **五加组**

Sect. 1. **Acanthopanax**

Typus sectionis: *A. spinosus* (Linn. f.) Miq.

乌蔹莓叶五加 *A. cissifolius* (Griff.) Harms

离柱五加 *A. eleutheristylus* Hoo, sp. nov.

离柱五加变种 var. *eleutheristylus*

1) Harms, H., 1897, in Engler & Prantl, Nat. Pflanzenfam. III, 8, 49—50.
2) ———, 1918, Mitt. Deutsch. Dendr. Ges. XXVII, 1—39.
3) Nakai, T., 1924, Journ. Arn. Arb. V, 1—11.
4) Li H. L., 1942, Sargentia II, 69—90.

单叶变种 var. *simplex* Hoo, var. nov.

俞氏五加 *A. yui* Li

俞氏五加变种 var. *yui*

细刺变种 var. *parvispinosus* Hoo, var. nov.

长梗变种 var. *longipedunculatus* Hoo, var. nov.

纪氏五加 *A. giraldii* Harms

纪氏五加变种 var. *giraldii*

疏毛叶变种 var. *pilosulus* Rehd.

粗毛变种 var. *hispidus* Hoo, var. nov.

魏氏五加 *A. wilsonii* Harms

细叶五加 *A. stenophyllus* Harms

细刺五加 *A. setulosus* Franch.

席氏五加 *A. sieboldianus* Makino

芮氏五加 *A. rehderianus* Harms

芮氏五加变种 var. *rehderianus*

长梗变种 var. *longipedunculatus* Hoo, var. nov.

匍匐五加 *A. scandens* Hoo, sp. nov.

五加 *A. gracilistylus* W. W. Smith

五加变种 var. *gracilistylus*

短毛叶变种 var. *pubescens* (Pamp.) Li

柔毛叶变种 var. *villosulus* (Harms) Li

糙毛叶变种 var. *nodiflorus* (Dunn) Li

大叶变种 var. *major* Hoo, var. nov.

輪伞五加 *A. verticillatus* Hoo, sp. nov.

组 2. **离核组**

Sect. 2. **Eleutherococcus** (Maxim.) Harms in Engler & Prantl, Nat. Pflanzenfam. III, 8 (1894) 49.

Typus sectionis: *A. senticosus* (Rupr. & Maxim.) Harms

刺五加 *A. senticosus* (Rupr. & Maxim.) Harms

尾叶五加 *A. cuspidatus* Hoo, sp. nov.

尾叶五加变种 var. *cuspidatus*

天全变种 var. *tienchuensis* Hoo, var. nov.

藤五加 *A. leucorrhizus* (Oliv.) Harms

藤五加变种 var. *leucorrhizus*

糙叶变种 var. *fulvescens* Harms & Rehd.

狭叶变种 var. *scaberulus* Harms & Rehd.

腋毛叶变种 var. *axillaritomentosus* Hoo, var. nov.

蜀五加 *A. setchuenensis* Harms

蜀五加变种 var. *setchuenensis*

阔叶变种 var. *latifoliatus* Hoo, var. nov.

糙叶五加 *A. henryi* (Oliv.) Harms

糙叶五加变种 var. *henryi*

法氏变种 var. *faberi* Harms

西蒙五加 *A. simonii* Schneid.

西蒙五加变种 var. *simonii*

长梗变种 var. *longipedicellatus* Hoo, var. nov.

短柄五加 *A. brachypus* Harms

倒卵叶五加 *A. obovatus* Hoo, sp. nov.

组 3. **花椒五加组**

Sect. 3. **Zanthoxylopanax** Harms, Mitt. Deutsch. Dendr. Ges. XXVII (1918) 26.

Typus sectionis: *A. trifoliatus* (Linn.) Merr.

白簕 *A. trifoliatus* (Linn.) Merr.

白簕变种 var. *trifoliatus*

刚毛叶变种 var. *setosus* Li

箭炉五加 *A. lasiogyne* Harms

组 4. **头序五加组**

Sect. 4. **Cephalopanax** (Baill.) Harms, Mitt. Deutsch. Dendr. Ges. XXVII (1918) 14.

Typus sectionis: *A. sessiliflorus* (Rupr. & Maxim.) Seem.

两岐五加 *A. divaricatus* (Sieb. & Zucc.) Seem.

无梗五加 *A. sessiliflorus* (Rupr. & Maxim.) Seem.

组 5. **吴茱萸五加组**

Sect. 5. **Evodiopanax** Harms, Mitt. Deutsch. Dendr. Ges. XXVII (1918) 28.

Typus sectionis: *A. evodiaefolius* Franch.

吴茱萸叶五加 *A. evodiaefolius* Franch.

吴茱萸叶五加变种 var. *evodiaefolius*

细梗变种 var. *gracilis* W. W. Smith

锈毛变种 var. *ferrugineus* W. W. Smith

组 6. **短轴组**

Sect. 6. **Sciadophylloides** Harms, Mitt. Deutsch. Dendr. Ges. XXVII (1918) 30.

Typus sectionis: *A. sciodophylloides* Franch. et Sav.

中华五加 *A. sinensis* Hoo, sp. nov.

离柱五加 新种

Acanthopanax eleutheristylus Hoo, sp. nov.

Similis *A. cissifolio* (Griff.) Harms qui differt foliolis minoribus lanceolatis vel oblanceolatis vel obovatis subtus ad nervos pubescentibus. *A. wilsonii* Harms similis, qui

foliolis minoribus marginibus crenatis, stylis basi connatis differt.

Frutex inermis (?) glaber, ramulis annotinis brunneo-purpurescentibus, hornotinis atro-purpureis. Folia chartacea glaberrima partim simplicia ovata vel oblongo-elliptica 6—11 cm longa 4.5—6.5 cm lata apice acuta basi rotundata, partim 3—5-foliolata, foliolis ellipticis vel oblongo-ellipticis 4.5—8 cm longis 1.5—3 cm latis apice acuminatis vel caudatis basi rotundatis vel attenuatis, margine simplicio-serrata vel duplicato-serrulata, nervis lateralibus utrinsecus 6—8 conspicuis, venulis tertiariis supra impressis subtus elevatis conspicuis, petiolulis sessilibus vel ad 5 mm longis glabris; petioli 1.5—10 cm longi glabri. Umbella fructifera terminalis solitaria circ. 20-fructifera 3.4—4.5 cm diametro, pedunculo 2.5—4 cm longo glabro. Fructus pentagonus oblongo-globosus circ. 7—8 mm longus 6—7 mm latus, stylis persistentibus 5 liberis vel fere liberis recurvis, pediculis 8—12 mm longis glabris, suffultus.

本种和乌蔹莓叶五加 [*A. cissifolius* (Griff.) Harms] 相似，但那种植物的小叶较小，披针形至倒披针形或倒卵形，下面脉上有短柔毛。与魏氏五加 (*A. wilsonii* Harms) 的区别点在于那种植物的小叶较小，边缘为钝齿，花柱基部合生。

(1) **离柱五加变种**

var. **eleutheristylus**

Folia 3—5-foliolata, foliolis ellipticis vel oblongo-ellipticis 4.5—8 cm longis 1.5—3 cm latis apice acuminatis vel caudatis basi rotundatis vel attenuatis, petiolulis 5 mm longis.

Shensi: Hwa-yin (华阴), Hwa-shan (华山), temple Chen-yo (镇岳宫), Jun. 11, 1939, T. N. Liou (刘慎谔) *10878* (Type, HP).

(2) **单叶变种** 新变种

var. **simplex** Hoo, var. nov.

A var. *eleutheristylo* differt foliis ramulorum superiore simplicibus ovatis vel oblongo-ellipticis 6—11 cm longis 4.5—6.5 cm latis apice acutis basi rotundatis, inferiore profunde trilobatis vel trifoliolatis, foliolis medianis ellipticis 6—8 cm longis 1.5—4 cm latis sessilibus.

Shensi: Tai-pai-shan (太白山), Ta-tien (大殿), without date, T. N. Liou et P. C. Tsoong (鍾补求) *2372* (Type, HW); Hwa-hsien (华县), Hwang-kia-tsun (黄家村), Kiu-tao-kow (九道沟), alt. 2500 m, Jul. 21, 1952, T. P. Wang (王作宾) *15902*.

本变种与离柱五加变种的区别点在枝上部为单叶，卵形至长圆状椭圆形，长 6—11 厘米，宽 4.5—6.5 厘米，先端尖，基部圆形，枝中部和下部的叶 3 深裂或有 3 小叶，中央小叶椭圆形，长 6—8 厘米，宽 1.5—4 厘米，无小叶柄。

俞氏五加

Acanthopanax yui Li, Sargentia II (1942) 9, f. 12.

(1) **俞氏五加变种**

var. **yui**

(2) **细刺变种** 新变种

var. **parvispinosus** Hoo, var. nov.

A var. *yui* differt ramulis dense aculeatis, aculeis gracilibus 4—6 mm longis, basi crassis dilatatis.

Szechuan: Mao-hsien (茂县), Lao-ran-shan (老人山), Jul. 25, 1955, Y. Su (徐岩) B. N. Ran et K. S. Fu *25* (Type, HP).

Yunnan: Teh-ching (德钦), in thickets, Jun. 18, 1960, Nan-shui Exped. (南水队) no. *9434*.

本变种和俞氏五加变种不同处在小枝上密生细长直刺，刺针状，长 4—6 毫米，基部膨大而下延。

（3）**长梗变种**　新变种

var. **longipedunculatus** Hoo, var. nov.

A var. *yui* et var. *parvispinoso* Hoo differt ramulis brunneo-fulvis paucissime aculeatis, aculeis gracilibus 2 mm longis, foliolis sessilibus margine crenatis, umbellis 2, altera terminali circ. 25-fructifera, altera axillari circ. 8-fructifera praeterea fructibus 5—6 ad basin axis sparsim despositis, pedunculis gracilibus 5—6 cm longis, pediculis gracilibus pubescentibus 8—12 mm longis.

Tibet: Cha-yu (察隅), in forest, Aug. 5, 1961, P. K. Hsiao (萧培根) *2083* (Type, HM).

本变种和前两变种不同在小枝棕黄色，疏生细长直刺，刺长约 2 毫米，纤细，小叶无柄，边缘为钝锯齿，伞形花序两个，顶生者有 25 个果实，侧生者有 8 个果实，另有单生果实 5—6 个，总花梗纤细，长 5—6 厘米，花梗纤细，长 8—12 毫米，有细毛。

红毛五加

Acanthopanax giraldii Harms, Bot. Jahrb. XXXIV, 82 (1905) 80.

Acanthopanax giraldii var. *inermis* Harms et Rehd. Sarg. Pl. Wils. II (1916) 560, syn. nov.

（1）**红毛五加变种**

var. **giraldii**

（2）**毛梗变种**　新变种

var. **hispidus** Hoo, var. nov.

Acanthopanax giraldii auct. non Harms: Li, Sargentia II (1942) 80, pro parte.

A var. *giraldii* et var. *pilosulo* Rehd. differt ramulis hornotinis inermibus vel dense aculeatis saepe adpresso-tomentosis, pedunculis 0.5—2 cm longis dense hispidis vel furfuraceis, pedicellis dense vel sparse villosis.

Kansu: Sia-ho (夏河), Ching-shui, K. T. Fu (傅坤俊) *976*; Si-ho (西河), alt. 2300 m, T. P. Wang (王作宾) *14262* (Type, HP).

Shensi: Tai-pai-shan (太白山), She-ku (斜谷), C. H. Wang (王振华) *949*; same place, K. T. Fu *8353*, T. N. Liou (刘慎谔) et P. C. Tsoong (鍾补求) *2626*.

Szechuan: Sung-pan (松潘), W. P. Fang (方文培) *4145*; Pao-hsing (宝兴), K. L. Chu (曲桂龄) *3774*; Kang-ting (康定), S. L. Kiang (蒋兴麐) *35963*; Shua-ching-sze (刷经寺), S. Li (李馨) et G. C. Chow (周继西) *72410*; Siao-kin-hsien (小金县), S. S. Chang (张秀实) et U. S. Ran (任有銑) *6071*; Ta-kin-hsien (大金县) S. Li *77737*.

本变种和红毛五加变种及毛叶变种 (var. *pilosulus* Rehd.) 不同处在嫩枝上有贴生的絨毛，伞形花序的总花梗长 0.5—2 厘米，密生粗毛或硬毛，花梗密生或疏生长柔毛。又本

种小枝上有时密生下向细长直刺，有时仅节上有几个细长直刺，有时又完全无刺，这种变化可以在同一标本上发现，如傅坤俊 *8353*、*976*，刘慎谔、鍾补求 *2626* 等号标本就是如此，所以无刺变种（var. *inermis* Harms et Rehd.）不能成立，应作异名。

芮氏五加

Acanthopanax rehderianus Harms, Sarg. Pl. Wils. II (1916) 561.

（1）**芮氏五加变种**

var. **rehderianus**

（2）**长梗变种** 新变种

var. **longipedunculatus** Hoo, var. nov.

A var. *rehderiano* Harms differt ramulis dense vel pauce aculeatis, aculeis gracilibus reflexis, foliolis obovato-ellipticis vel oblanceolatis majoribus (6—9 cm longis 2—3.5 cm latis) apice acutis vel breviter acuminatis basi attenuatis, margine crenato-serratis, petiolis gracilibus ad 15 cm longis, pedunculis (3—4 cm longis) et pedicellis (1.5 cm longis) longioribus pubescentibus.

Shensi: Lung-hsien (陇县), Kwan-shan (关山), alt. 2300 m, Jun. 2, 1936, T. P. Wang (王作宾) *4128* (Type, HW).

Kansu: Yu-chung (榆中), Sin-lung-shan (兴隆山), alt. 2250 m, Jun. 30, 1941, G. Hoo (何景) et T. P. Wang *190*.

本变种与芮氏五加变种的区别点在于小枝密生或疏生细长直刺，小叶倒卵状椭圆形至倒披针形，较大（长 6—9 厘米，宽 2—3.5 厘米），先端急尖或短渐尖，基部渐狭尖，边缘有钝锯齿，叶柄细长，长达 15 厘米，总花梗（长 3—4 厘米）和花梗（长 1.5 厘米）较长，有短柔毛。

匍匐五加 新种

Acanthopanax scandens Hoo, sp. nov.

Planta *A. trifoliato* (Linn.) Merr. similis qui differt ramulis aculeatis, foliolis petiolulatis ternatis vel quinatis, umbellis multioribus, pedunculis umbellarum longioribus.

Frutex scandens, ramulis annotinis griseo-brunneis inermibus, hornotinis luteolis inermibus glabris. Folia 3-foliolata vel interdum simplicifolia vel bifoliolata; foliola sessilia membranacea medianum ovato-ellipticum 5.5—7 cm longum 3.5—5 cm latum apice acuminatum basi latiuscule cuneatum, lateralia rhomboideo-ovata 3.5—5.5 cm longa 1.6—2.8 cm lata apice acuminata vel breviter acuminata basi obliqua saepe leviter cuneata, simplicifolia magna ovata 6—9 cm longa 4—4.5 cm lata apice acuminata basi cordata, supra sparse setulosa subtus ad nervos parcissime setulosa, nervis lateralibus utrinsecus 4—6 elevatis distinctis, venulis tertiariis inconspicuis, margine duplicato-serrata, serris setaceis; petioli glabri 2—4.5 cm longi. Umbellae terminales vel subterminales, solitariae vel ternatae sessiles vel pedunculatae (pedunculo ad 2 cm longo glabro), mediana major 10—20-flora, laterales minores 2—6-florae; bracteae lanceolatae circ. 2 mm longae; bracteolae subulatae 1 mm longae; calyx campanulatus glaber 2.5 mm longus margine 5-den-

tatus, dentibus deltoideis; petala et stamina ignota; ovarium 2- raro 3-loculare, stylis 2 raro 3 infra medium connatis apice recurvis; pedicelli 8 mm longi glabri. Fructus compresso-globosus niger 8 mm longus latusque 2 mm crassus, pediculis ut pedunculi purpurinis sub fructescentia non elongatis. Semina alba reniformia 5 mm longa 3 mm lata.

Anhwei: Kiu-hwa-shan (九华山), Sia-min-yang (下闵园), in forest, climbing shrub, fruits black, seeds red (?), Oct. 16, 1951, Hwa-tung Herb. Loc. (华东工作站) *5910*.

Chekiang: Sze-ming-shan (四明山), Sia-ma-kang (蛤蟆坑), in forest, Jul. 10, 1958, Sze-ming Bot. Exped. (四明调查队) no. *833* (Type, HP); Chang-hwa (昌化), Lung-tang-shan (龙塘山), Tien-men-kow (天门口), climbing shrub, fruits black, Oct. 10, 1958, Chang-hwa Bot. Exped. (昌化调查队) no. *30647*.

本种很象白簕 [*A. trifoliatus* (Linn.) Merr.]，区别点在那种植物的小枝有刺，叶有3片或5片小叶，小叶有柄，伞形花序较多，总花梗较长。

五加

Acanthopanax gracilistylus W. W. Smith, Notes Bot. Gard. Edinb. X (1917) 6.

(1) **五加变种**

var. **gracilistylus**

(2) **大叶变种**　新变种

var. **major** Hoo, var. nov.

Varietate distinctissima arbuscula 5 m alta (fide coll.), ramulis griseo-brunneis, foliolis ellipticis vel oblongis majoribus (14 cm longis 5 cm latis), margine grosse crenatis.

Anhwei: Su-chen (舒城), Kou-er-kow (沟二口), Hung-kia-chung (洪家冲), Sept. 30, 1951, Hwa-tung Herb. Loc. (华东工作站) no. *4531* (Type, HN).

Chekiang: Hang-chow (杭州), 1956, Z. R. Li (李增瑞) *106*; without precise locality, Jul. 20, 1956, Z. R. Li without number.

本变种植物体为小乔木(根据采集记录)，小枝灰棕色，小叶椭圆形或长圆形，较大(长14厘米，宽5厘米)，边缘有粗大钝齿，这些特点和五加变种及其他变种不同。

轮伞五加　新种

Acanthopanax verticillatus Hoo, sp. nov.

Species panicula fructifera umbellata, umbellis 4, una ad apicem rhachis pedunculato, inferne tribus sessilibus, stylis persistentibus 2—5 liberis vel infra medium connatis distinguenda.

Frutex, ramulis purpureis parvi-aculeatis, aculeis reflexis 1.5—3 mm longis basi dilatatis. Folia petiolata, petiolis 2.8—11.5 cm longis glabris paucissime aculeatis; foliola 3—5 membranacea obovata vel late elliptica 7—11 cm longa 3.5—5.2 cm lata apice acuta vel breviter acuminata vel caudata basi cuneata vel late cuneata supra viridia glabra ad nervos setigera subtus pallido-viridia glabra, nervis lateralibus utrinsecus 6—8 conspicuis, venulis ultimis inconspicuis, margine irregulariter crenato-serrata, serris setulosis; petioluli 1—10 mm longi laterales breviores. Panicula terminalis umbellata 5—13 cm longa, rhachide gracili; umbellae 4 praeter terminales pedunculatas sessiles; flores ignoti. Fructus globosus 5 mm diam. 2—5-locularis 2—5-sulcatus, stylis persistentibus 2—5 liberis vel

infra medium connatis reflexis, pediculis gracilibus 8—15 mm longis sparse pubescentibus.

Tibet: Bo-mie (波密), Zhe-mu river (札木河), alt. 3200 m, in forest, Jul. 20, 1960, P. K. Hsiao (萧培根) *546* (Type, HM).

本种特点在圆锥果序主轴上輪生 4 个伞形果序，除顶生 1 个果序外，下面 3 个无总花梗；果实上的宿存花柱 2—5 个，分离或合生至中部。这些特点不见于本属他种。

尾叶五加 新种

Acanthopanax cuspidatus Hoo, sp. nov.

Ex affinitate *A. senticosi* (Rurp. et Maxim.) Harms et *A. leucorrhizi* (Oliv.) Harms differt foliolis minoribus apice cuspidatis, umbellis minoribus, pedunculis pedicellisque brevioribus.

Frutex erectus 1—5 m altus, ramulis sparse vel dense aculeatis, aculeis gracilibus reflexis basi crassis vel dilatatis simplicibus vel ramificatis. Folia longe petiolata, petiolis 3—10.5 cm longis glabris dense vel paucissime aculeatis vel raro inermibus; foliola 3—5 membranacea vel chartacea lanceolata vel elliptica vel raro oblanceolata apice cuspidata basi attenuata vel cuneata 3—9 cm longa 1—3 cm lata supra scabridula subtus glabra, margine irregulariter serrata vel duplicate serrata, serris apice setigeris, nervis lateralibus utrinsecus 6—8 prominentibus, venulis tertiariis subconspicuis; petioluli 2—10 mm longi glabri inermes vel aculeati. Inflorescentia terminalis in umbellis paucis ad apicem ramulorum annotinorum disposita, umbellis multifloris vel laxifloris circ. 2 cm diametro, pedunculis gracilibus glabris 2—6.5 cm longis, pedicellis 6 mm longis glabris; calyx glaber margine 5-dentatus, dentibus acutis minutis; petala 5 ovato-oblonga circ. 2 mm longa reflexa glabra; stamina 5, filamentis 2.5 mm longis; ovarium 5-loculare, stylis omnino connatis. Fructus niger subglobosus 8 mm longus 6 mm latus pentagonus.

和它的近缘种刺五加 [*A. senticosus* (Rupr. et Maxim.) Harms] 及藤五加 [*A. leucorrhizus* (Oliv.) Harms] 的区别点在于小叶较小，先端长尾尖，伞形花序较小，总花梗和花梗较短。

(1) **尾叶五加变种**

var. **cuspidatus**

Aculei ramulorum simpli basi crassi non dilatati vel leviter dilatati, cicatricibus fere rotundatis; foliola membranacea lanceolata vel elliptica raro oblanceolata.

Szechuan: Han-yuan (汉源), Ta-siang-ling (大相岭), Aug. 9, 1939, S. G. Yang (杨衡晋) *3578* (Type, HP); Hung-ya (洪雅), Wa-wu-shan (瓦屋山), Jul. 1939. C. W. Yao (姚仲吾) *4137*.

(2) **天全变种** 新变种

var. **tienchuanensis** Hoo, var. nov.

A var. *cuspidato* differt aculeis ramulorum rubro-brunneis simplicibus vel ramificatis reflexis, basi dilatati, foliolis chartaceis lanceolatis raro ellipticis.

Szechuan: Tien-chuan (天全), Yin-chang (银厂), Kan-kou (干沟), alt. 2400 m, in forest, Dec. 11, 1953, H. L. Chiang (蒋兴麐) *38029* (Type, HP); same district, Er-lang-shan (二郎山), New-tsin-kou, alt.

2600 m, in forest, Aug. 25, 1953, H. L. Chiang *35371*; same district, Te-new-zhe-ba, alt. 2350 m, Sept. 7, 1953, H. L. Chiang *37801*.

本变种与尾叶五加变种的区别在小枝上的刺红棕色，基部膨大，下延，细长，不分枝，稀扁平分枝，小叶坚紙质，披针形，稀椭圆形。

藤五加

Acanthopanax leucorrhizus (Oliv.) Harms, Engler et Prantl, Nat. Pflanzenfam. III, **8** (1894) 49.

(1) **藤五加变种**

var. **leucorrhizus**

(1a) **藤五加变型**

f. **leucorrhizus**

(1b) **狭叶变型**　新变型

f. **angustifoliatus** Hoo, f. nov.

A forma *leucorrhizo* differt foliolis anguste oblongis vel oblongo-lanceolatis 4.3—10.5 cm longis 0.7—1.7 cm latis apice breviter acuminatis basi rotundatis, nervis lateralibus utrinsecus 10—16 horizontalibus, margine spinuloso-serratis.

Szechuan: Mount Omei (峨眉山), in thickets, alt. 2600—2700 m, Aug. 12, 1928, W. P. Fang (方文培) *2861*; same place, S. Y. Ho (贺贤育) *6109* (Type, HP); Wu-chi (巫溪), Si-cha-siang (西察乡), in forest, alt. 1900 m, Sept. 19, 1958, K. H. Yang (杨光辉) *65453*.

本变型和藤五加变型不同处在小叶狭长圆形或长圆状披针形，长 4.3—10.5 厘米，宽 0.7—1.7 厘米，先端短渐尖，基部圆形，侧脉 10—16 对，平展，边缘有刺状细锯齿。

(2) **腋毛叶变种**　新变种

var. **axillaritomentosus** Hoo, var. nov.

A var. *leucorrhizo* foliolis firme chartaceis, subtus in nervorum axillis tomentosis differt.

Szechuan: Mount Omei (峨眉山), San-tao-ho (三道河), alt. 1700 m, Jun. 30, 1957, K. H. Yang (杨光辉) *56299* (Type, HP); same locality, Kung-pei-shan (弓背山), Sept. 12, 1939, C. W. Yao (姚仲吾) *5106*; same locality, Chan-tien-pao (钻天坡), alt. 2100 m, K. H. Yang *56337*.

本变种与藤五加变种不同处在小叶坚紙质，下面脉腋有簇生的锈色絨毛。

蜀五加

Acanthopanax setchuenensis Harms, Bot. Jahrb. XXIX (1909) 488.

(1) **蜀五加变种**

var. **setchuenensis**

(2) **阔叶变种**　新变种

var. **latifoliatus** Hoo, var. nov.

A var. *setchuenensi* differt foliolis orbiculari-ovatis apice caudatis basi late cuneatis, margine irregulariter inciso-serratis.

Kansu: Wu-tu (武都), Lan-shan (兰山), alt. 2500 m, Jun. 21, 1930, K. S. Hao (郝景盛) *483* (Type, HP).

本变种小叶圆卵形，先端有尾尖，基部阔楔形，边缘有不整齐齿裂等点，和蜀五加变种不同，Harms 在鉴定此标本时，也注明系一变种，但未定名。

西藏五加

Acanthopanax simonii Schneid. Ill. Handb. Laubholdzk. II (1909) 426, *f. 290 C.*

(1) **西藏五加变种**

var. **simonii**

(2) **长梗变种** 新变种

var. **longipedicellatus** Hoo, var. nov.

Acanthopanax simonii auct. non Schneid.: Li, Sargentia II (1942) 75.

var. distinctissima umbellis majoribus, pedicellis gracilibus 2.5 cm longis, floribus magnis.

Kweichow: Tu-yun (都匀), in dense forest, climbing shrub, flowers white, Jul. 11, 1930, Y. Tsiang (蒋英) *5746* (Type, HP); Ta-ding (大定), Y. Tsiang *8878*.

本变种的特点是伞形花序和花较大，花梗纤长。

短柄五加 补充记载

Acanthopanax brachypus Harms, Bot. Jahrb. XXXVI, 82 (1905) 80.

Ad descriptionem floris addenda:

Inflorescentia terminalis umbellata, umbellis solitariis vel paucis multifloribus 1—1.5 cm diametro, pedunculis 1—2 cm longis glabris, bracteis ovatis purpurescentibus circ. 1 mm longis apice acutis ferrugineo-pilosulis, margine plus minusve ciliolatis, pedicellis glabris 1—1.5 cm longis. Flores virides; calyx pubescens, margine 5-dentatus; petala ovata apice acuta circ. 2 mm longa; stamina 5, filamentis 2 mm longis; ovarium 5-loculare, stylis omnino connatis, circ. 0.8 mm longis.

Shensi: Hwang-lung-shan (黄龙山), Aug. 15, 1939, K. T. Fu (傅坤俊) *3294* (HP).

倒卵叶五加 新种

Acanthopanax obovatus Hoo, sp. nov.

Acanthopanax leucorrhizus auct. non Harms: 乐天宇、徐纬英，陕甘宁盆地植物志 (1957) 160。

Species habitu *A. sieboldiani* Makino et *A. gracilistyli* W. W. Smith a quibus inflorescentiis majoribus, umbellis paucioribus, floribus hermaphroditis, stylis omnino connatis valde deversus.

Frutex erectus, ramulis glabris aculeatis infrastipularibus solitariis vel geminatis, aculeis gracilibus recurvis. Folia petiolata, petiolis 2.5—5 cm longis inermibus glabris; foliola 5 chartacea sessilia vel subsessilia obovata apice acuta basi cuneata 2.5—5 cm longa 1.5—2 cm lata utrinque glabra, margine subintegra vel paucicrenata vel raro sursum pauciserrata, nervis lateralibus utrinsecus 4 subconspicuis, venulis tertiariis supra impressis subtus obscuris. Umbellae terminales solitariae vel geminatae vel paucae in ramulo abbreviato vel elongato multiflorae 3—4 cm diametro, pedunculo 2—6 cm longo glabro, pedi-

cellis gracilibus glabris 1.5 cm longis; calyx glaber margine 5-dentatus; petala 5 triangulari-ovata glabra reflexa 2 mm longa; stamina 5, filamentis 2 mm longis; ovarium 5-loculare, stylis omnino connatis circ. 0.6 mm longis. Fructus immaturus pentagonus ellipsoideo-ovoideus 5 mm longus 4 mm latus, stylis persistentibus circ. 1.5 mm longis.

Kansu: Lin-tang (临潭), Lien-hwa-shan (莲花山), without date, North-west China teachers' College (西北师范学院) no. *2* (Type, HP); Hwa-ting (华亭), Chao-kia-kow (赵家沟), alt. 1600 m, Jul. 23, 1953, T. P. Wang (王作宾) *16986*; Chung-sin (崇信), Chi-chen (赤城), alt. 1400 m, Jul. 4, 1953, S. G. Chung (仲士奇) et P. L. Yang (杨平亂) *63*; Tien-shui (天水), Lei-er-kow (吕二沟), alt. 1500 m, Y. W. Chiu (崔友文) *10064*; Pin-liang (平凉), Kung-tung-shan (崆峒山), Aug. 8, 1956, Hwang-ho Exped. (黄河调查队) no. *1996*; without precise locality, 1956, Hwang-ho Exped. no. *674*.

Shensi: Kan-chuan (甘泉), Ta-tung-kow (大东沟), Hwang-ho Exped. no. *6416*; Yen-an (延安), Hung-tu-kow (红土沟), in thickets, alt. 1150 m, Sept. 14, 1954, K. T. Fu (傅坤俊) *8154*; Tze-dan (志丹), 1953, Shen-kan Exped. (陕甘调查队) no. *10777*.

本种外形和五加(*A. gracilistylus* W. W. Smith)及异株五加(*A. sieboldianus* Makino)相似，但本种花序较大，伞形花序较少，花两性，花柱全部合生成柱状体等点容易区别。

箭炉五加

Acanthopanax lasiogyne Harms, Sarg. Pl. Wils. II (1916) 563.

Acanthopanax wardii W. W. Smith, Notes Bot. Gard. Edinb. X (1917) 7, *syn. nov.*

据文献记载箭炉五加产康定，只有1个伞形花序，花梗（长5—7毫米）和总花梗（长0.5—1厘米）较短而有絨毛，萼也有絨毛；*A. wardii* W. W. Smith 主产于云南怒江、澜沧江河谷，四川较少，伞形花序4—7个，花梗（长5—10毫米）和总花梗（长1—2厘米）较长，无毛，萼也无毛。这些区别看来是根据少数标本得出的结果，经检视多数标本（包括前人列举过的标本如王启无 *65496*、*66193*、*69179*、*69180* 等），发现康定产的箭炉五加（如方文培 *11060* 及 *11238* 等）伞形花序可多至5个，花梗长5—9毫米，最长达12毫米，总花梗的长度也多变化；云南产的 *A. wardii*，萼齿上也往往明显的有絨毛残留（如上面列举过的王启无各号标本），花梗也可细长，总花梗也可很短。两地所产标本的花、花梗、和总花梗都密生白色絨毛，但在开花前脱落，有的标本脱落清净，有的萼齿、花梗和总花梗上的絨毛脱落不全，因此这个种间的区别不明显，应予合并，由于 *A. wardii* 发表较迟，应作为箭炉五加的异名。

箭炉五加在开花前花梗很短，开花时花梗即延长，花序非头形，不应属头序五加组（Sect. *Cephalopanax* Harms），应改属花椒五加组（Sect. *Zanthoxylopanax* Harms）。

中华五加　新种

Acanthopanax sinensis Hoo, sp. nov.

A. sciadophylloidei Franchet et Savat. similis, differt foliolis majoribus, subtus in nervorum axillis pubescentibus, corymboso-paniculis laxioribus, pediculis longioribus (4—7 mm longis), fructibus subcompressis, stylis brevioribus (1/3—1/2 mm longis).

Arbor, ramulis inermibus luteolis striatis parcissime lenticellatis, lenticellis albis. Folia petiolata, petiolis teretibus glabris basi crassis 3.2—6.5 cm longis; foliola 3—5 chartacea lanceolata vel elliptica vel oblonga 4.5—11 cm longa 1.6—4.5 cm lata, mediano magno lateralibus pro rata parte parvis plus minusve obliquis, apice breviter acuminata

basi late cuneata dilatata utrinque glabra, margine remote serrulata, nervis lateralibus utrinsecus 6—8 elevatis distinctis, venulis ultimis conspicuis; petioluli brevi glabri 0.2—0.8 cm longi. Inflorescentia terminalis 12 cm longa et 20 cm lata; rhachis brevis circ. 1 cm longa; rhachillae verticillato vel corymbiformi-dispositae, omnes 11—16-ramificatae, ramulis ultimis uniumbellatis in parte superiore rhachillis verticillatis inferiore racemosis; umbella fructifera 1.3—1.8 cm diam. circ. 10-fructifera, pedunculis 0.4—1 cm longis glabris; flores ignoti, bracteis caducis. Fructus compresso-globosus 4—5 mm diam. et 1 mm crassus bilocularis, calycibus persistentibus conspicue 5-dentatis, dentibus deltoideis apice acutis, disco conico brevissimo abdito in calyce, stylis persistentibus omnino in columnam connatis circ. 1 mm longis, pediculis inarticulatis glabris 2—4 mm longis, bracteolis persistentibus subulatis circ. 0.5 mm longis.

Szechuan: Wan-hsien (万县), Shui-san-ba (水杉坝), in forest, Sept. 26, 1947, T. C. Hwa (华敬灿) *72* (Type, HP).

本种是短轴组中我国唯一的代表种，和日本产 *A. sciadophylloides* Franch. & Savat. 的区别点在那种植物的小叶较大，下面脉腋有毛，花序较稀疏，花梗较长（长 4—7 毫米），果实不甚扁，花柱较短（长 1/3—1/2 毫米）。

大参属 Macropanax Miq.

十蕊大参 新种

Macropanax decandrus Hoo, sp. nov.

Macropanax undulatus auct. non Seem.: Li, Sargentia II (1942) 61, pro parte.

Macropanax oreophilus auct. non Miq.: Li, Sargentia II (1942) 61, pro parte.

Similis *M. undulato* (Wall.) Seem. qui differt paniculis majoribus, floribus minoribus, petalis et staminibus 5, filamentis brevioribus, fructibus ovoideis minoribus.

Arbor 5—7 m alta. Ramuli grisei breviter striati. Folia petiolata, petiolis gracilibus 2.5—14 cm longis glabris basi tumidis; foliola 3 vel 5 vel raro 2 chartacea oblonga vel oblongo-elliptica 7.5—16 cm longa 3—9 cm lata, apice abrupte caudata basi obtusa vel late cuneata, margine integra saepe remote pauciserrulata glabra, nervis lateralibus utrinsecus 4—6 supra subdistinctis subtus elevatis distinctis, venulis ultimis obscuris; petioluli graciles 1—5 cm longi extimi breves glabri. Panicula 8—12 cm longa circ. 10-ramificata; rhachillae 2—3.5 cm longae uniumbellatae; umbella multiflora circ. 2.5 cm diametro, pedunculo 1.5—2 cm longo, bracteis bracteolisque caducis, pedicellis 0.8 cm longis articulatis; calyx glaber circ. 2 mm longus margine 7—10-dentatus, dentibus triangularibus; petala 7—10 alba fragrantia triangulari-ovata glabra circ. 3.5 mm longa; stamina 7—10, filamentis 4 mm longis, antheris oblongis 0.8 mm longis; ovarium biloculare, stylis omnino connatis crassis circ. 0.5 mm longis. Fructus fere globosus 8—9 mm diametro, disco obconico elevato, stylis persistentibus 2.5 mm longis.

Hainan: Pei-sha (白沙), Na-pang (那邦), Feb. 27, 1937, S. K. Lau (刘心祈) *25484* (Type, HC); same

place. Feb. 23, 1936, S. K. Lau *25403*; Ling-shui (陵水), Kian-shan (尖山), McClure *20125*; C. Wang (黄志) *36325*; without locality, H. Y. Liang (梁向日) *64212*.

本种和波缘大参 [*M. undulatus* (Wall.) Seem.] 相近，区别在那种植物的圆锥花序较长较大，花较小，花瓣和雄蕊 5 个，花丝较短，果实卵球形，较本种为小。

海南不产大参 (*M. oreophilus* Miq.) 和波缘大参，前人误将本种定为大参和波缘大参。

小花大参　新种

Macropanax parviflorus Hoo, sp. nov.

Macropanax undulatus auct. non Seem.: Li, Sargentia II (1942) 61, pro parte.

Affinis *M. undulato* (Wall.) Seem., qui differt nervis lateralibus foliolorum paucioribus supra subconspicuis, umbellis multifloris majoribus, floribus majoribus.

Arbor 6—12 m alta, ramulis brunneo-luteolis parcissime lenticellatis, lenticellis oblongis vel orbicularibus. Folia petiolata, petiolis 7—14 cm longis glabris striatis; foliola 3—5—7 chartacea oblongo-elliptica 9—12.5 cm longa 3—4.5 cm lata, apice caudata vel longe acuminata basi late cuneata dilatata lateralia saepe obliqua utrinque glabra, margine sursum remote pauciserrulata, nervis lateralibus utrinsecus 8—10 elevatis, distinctis, venulis tertiariis obscuris; petioluli 3—25 mm longi extimi breviores. Panicula 30—60 cm longa (e collectore); rhachillae ad apicem rhachidis verticillatae inferiore recemosae 8—15 cm longae glabrae 10—15-umbellatae, umbellis terminalibus verticillatis inferiore racemosis 1—15 cm latis 7—12-floris, bracteis caducis, pedunculis 9—15 mm longis glabris, pedicellis articulatis 3—4 mm longis glabris; flores fulvi; calyx glaber 1.5 mm longus, margine 5-dentatus, dentibus deltoideis; petala 5 glabra circ. 1.5 mm longa; stamina 5 circ. 1.5 mm longa, antheris ovoideis; ovarium biloculare, stylis omnino connatis, circ. 0.5 mm longis, disco hemisphaerico elevato. Fructus ignotus.

Yunnan: Valley of Kiu-kiang (球江), alt. 1150 m in dense forest, tree 6—12 m high, leaflets 3—7, flowers yellowish brown, panicle 60 cm long, Sept. 27, 1938, T. T. Yu (俞德浚) *20489* (Type, HP).

本种和波缘大参 [*M. undulatus* (Wall.) Seem.] 很相近，区别在那种植物小叶侧脉数较少，在上面较不明显，花显著较大，伞形花序较大，花数较多。李惠林氏的记载，误为俞德浚 *20487*。

錢氏大参　新种

Macropanax chienii Hoo, sp. nov.

Planta venulis ultimis foliolorum utrinque distinctis, marginibus remote crenatis, paniculis laxis, rhachidibus rhachillisque dense brunneo-tomentosis valde distincta. Similis *M. oreophilo* Miq. qui differt foliolis 5—7 subtus venulis ultimis obscuris, paniculis confertis, rhachillis horizontalibus, umbellis multifloris, floribus minoribus.

Arbuscula circ. 5 m alta; ramuli griseo-luti striati. Folia petiolata, petiolis teretibus striatis glabris vel subglabris 3—7 cm longis; foliola 3—4 chartacea oblongo-elliptica vel oblonga, 11—16.5 cm longa 5.5—8.5 cm lata, lateralia minora apice acuminata basi ro-

tundata utrinque glabra, margine remote crenata, nervis lateralibus utrinsecus 6—8 supra conspicuis subtus elevatis distinctis, venulis tertiariis conspicuis; petioluli pubescentes mox glabri, mediano 9—30 mm longo, extimis 3—14 mm longis. Panicula terminalis laxa circ. 25 cm longa, rhachidibus rhachillisque dense brunneo-tomentosis; rhachillae 3.5—9 cm longae 2—5-umbellatae; umbellae racemosim dispositae 1.5—2 cm diam. 10—15-florae, bracteis oblongis, dense brunneo-tomentosis, bracteolis ovatis apice acutis dense brunneo-tomentosis, pedunculis 8—20 mm longis, pedicellis articulatis 6—9 mm longis dense brunneo-tomentosis; flores virides; calyx glaber 2.5 mm longus 5-dentatus, dentibus deltoideis; petala 5 glabra triangularia circ. 3 mm longa; stamina 5 circ. 3 mm longa, antheris ovoideis; ovarium biloculare, stylis omnino connatis. Fructus ignotus.

Yunnan: Chan-yi (沾益), Meng-la (勐拉), in thickets, alt. 850 m, Nov. 1936, C. W. Wang (王启无) *80512* (Type, HP).

本种特点在小叶上、下两面有明显的网脉,边缘有疏离钝齿;圆锥花序稀疏,主轴和分枝有棕色絨毛。本种和大参(*M. Oreophilus* Miq.)的区别在那种植物的小叶 5—7 片,网脉在下面不明显;圆锥花序较繁密,分枝平展,伞形花序的花数较多,花较小。

本种学名纪念中国科学院植物研究所所长钱崇澍教授 80 高寿。

卢氏大参 新组合

Macropanax rosthornii (Harms) Wu ex Hoo, comb. nov.

Nothopanax rosthornii Harms, Bot. Jahrb. XXIX (1900) 487.

Acanthopanax rosthornii Vig. Ann. Sci. Nat. IX, Bot. IV (1906) 42, *non Nothopanax delavayi* (Franch.) Harms ex Diels.

Heptapleurum Esquirolii Lév. Bull. Acad. Géogr. Bot. XXIV (1914) 45; Fl. Kouytchéou (1914) 35, *non Nothopanax delavayi* (Franch.) Harms ex Diels.

Harms 发表本种时,沒有看见果实,从外形看来,本种很象梁王茶属(*Nothopanax*),但其果实是卵球形,花柱合生,仅先端柱头部分分离,这些性质显然和梁王茶属的果实侧扁,花柱 2 个,基部合生,先端分离、反曲者不同,比较起来还是和大参属的特征接近,应该归入大参属。

就 Léveillé 的 *Heptapleurum Esquirolii* 的模式标本照片看来,小叶倒披针形,边缘疏生锯齿,果实卵球形,花柱合生成 1 柱状体,所以 Leveille 的这个种,应是本种的异名,而非梁王茶 [*Nothopanax delavayi* (Franch.) Harms ex Diels] 的异名。

幌伞枫属 Heteropanax Seem.

亮叶幌伞枫 新种

Heteropanax nitentifolius Hoo, sp. nov.

H. fragrans (Roxb.) Seem. subsimilis sed foliolis supra non nitidis, pedicellis tempore florenti 2 mm longis, calycis lobis minoribus indistinctis, fructu ovoideo leviter compresso, stylis persistentibus brevioribus valde distinctus.

Arbor 4—7 m alta. Folia ampla circ. 1 m longa bipinnata, pinnis 3—4-jugis; foliola

3—7 firme coriacea oblonga vel elliptica 8—12.5 cm longa 3.5—5.8 cm lata apice breviter acuminata basi late cuneata dilatata glabra supra nitida, nervis lateralibus utrinsecus circ. 8 supra impressis subconspicuis subtus elevatis distinctis, integra, petiolulis lateralibus 0.3—1.2 cm longis, terminali 2.2 cm longo; petioli breves circ. 10 cm longi glabri; stipulae adnatae. Panicula ampla 80—160 cm longa ramosa dense ferrugineo-tomentosa, ramulis 2—14 cm longis, rhachidibus 8—16-bracteatis; umbellae terminales ad apicem ramulorum singulares vel verticillatae pauciflorae vel multiflorae, pedunculis 1.5—2 cm longis, pedicellis 5—10 mm longis, bracteis bracteolisque ovatis; flores virides; calyx dense ferrugineo-tomentosus circ. 2 mm longus 5-dentatus, dentibus deltoideis circ. 0.6 mm longis; petala 5 oblongo-deltoidea circ. 2 mm longa; stamina 5, filamentis 2 mm longis, antheris oblongis circ. 1 mm longis; ovarium 2-loculare, stylis 2 liberis recurvis. Fructus valide compressus 4—5 mm longus non satis maturus, stylis persistentibus 3—4 mm longis.

Yunnan: Ho-kou (河口), Pin-lang-she (槟榔寨), alt. 120—140 m, tree 4 m high, flowers green, Nov. 8, 1954, P. Y. Mao (毛品一) *5375* (Type, HY).

本种外形和幌伞枫 [*H. fragrans* (Roxb.) Seem.] 有些相似，但那种植物小叶上面无光泽，花梗在开花时长 2 毫米，萼齿小，不明显，果实卵球形，不甚扁，宿存花柱较短等点，明显和本种不同。

云南幌伞枫 新种

Heteropanax yunnanensis Hoo, sp. nov.

Species fructibus compresso-globosis, pedicellis brevibus *H. brevipedicellato* Li subsimilis a quo differt foliolis orbicularibus vel ovatis apice abrupte acutis acuminatisve. *H. fragrans* (Roxb.) Seem. differt fructibus ovoideis leviter compressis, pedicellis longioribus.

Arbor ad 10 m alta. Folia bipinnata 20—50 cm longa; petioli teretes striati glabri 6—22 cm longi; pinnae 2—4-jugae; foliola 3—7 chartacea vel leviter coriacea orbicularia vel ovata apice abrupte acuta acuminatave basi rotundata vel late cuneata dilatata 4.5—5.5 cm longa 3.5—4.2 cm lata integra, nervis lateralibus utrinsecus 4—5 subconspicuis, venulis ultimis obscuris; petioluli 2—12 mm longi, terminali ad 2.2 cm longo; stipulae ad basin petiolorum connatae apice liberae brevissime deltoideae circ. 2 mm longae ferrugineo-tomentosae. Panicula ampla ramosa, rhachillis ad 25 cm longis ferrugineo-tomentosis 15—20-umbellatis vel multioribus; umbellae racemosim dispositae circ. 10-fructiferae, pedunculis fructiferis ferrugineo-tomentosis 1.8—2.4 cm longis, bracteolis persistentibus late ovatis circ. 1 mm longis apice acutis; flores ignoti. Fructus compresso-globosus, 6—7 mm diametro 1.5 mm crassus, pediculis 2—3 mm longis, stylis persistentibus 2 liberis recurvis.

Yunnan: Lan-tsang (澜沧), alt. 1500 m, in forest, May, 1936, C. W. Wang (王启无) *73375* (Type, HY); King-ku (景谷), Apr. 24, 1955, Yunnan Complex. Exped. no. *646*.

本种果实扁球形，果梗很短，和短梗幌伞枫 (*H. brevipedicellatus* Li) 相近，但本种小叶为圆形或卵形，先端突尖至突长尖和它不同。又与幌伞枫 [*H. fragrans* (Roxb.) Seem.] 相近，但那种植物的果实不甚扁，果梗也较长。

五叶参属 **Pentapanax** Seem.

组 1. **总序五叶参组**

Sect. 1. **Racemosae** Harms in Engler & Prantl, Nat. Pflanzenfam. III, 8 (1894) 55.

Typus sectionis: *P. racemosus* Seem.

心叶五叶参 *P. subcordatus* (Wall.) Seem.

总序五叶参 *P. racemosus* Seem.

组 2. **伞序五叶参组**

Sect. 2. **Pentapanax**

Typus sectionis: *P. leschenaultii* (Wight & Arn.) Seem.

锈毛五叶参 *P. henryi* Harms

锈毛五叶参变种 var. *henryi*

黃山变种 var. *hwangshanensis* Cheng

絨毛叶变种 var. *tomentosus* Hoo, var. nov.

方氏变种 var. *fangii* Hoo, var. nov.

披针五叶参 *P. lanceolatus* Hoo, sp. nov.

光叶五叶参 *P. leschenaultii* (Wight & Arn.) Seem.

光叶五叶参变种 var. *leschenaultii*

全缘叶变种 var. *forrestii* (W. W. Smith) Li

台湾五叶参 *P. castanopsidicola* Hayata

寄生五叶参 *P. parasiticus* (D. Don) Seem.

云南五叶参 *P. yunnanensis* Franch.

輪伞五叶参 *P. verticillatus* Dunn

锈毛五叶参

Pentapanax henryi Harms, Bot. Jahrb. XXIII (1896) 21.

(1) **锈毛五叶参变种**

var. **henryi**

(2) **絨毛叶变种** 新变种

var. **tomentosus** Hoo, var. nov.

A var. *henryi* differt foliolis subtus dense castaneo-tomentosis, petiolis et petiolulis dense castaneo-tomentosis, bracteis oblongis apice acuminatis 5 mm longis 2 mm latis, stylis omnino in columnam connatis.

Yunnan: Mong-tze (蒙自), alt. 1750 m, Oct. 19, 1939, C. W. Wang (王启无) *83485* (Type, HP).
Szechuan: Tien-chuan (天全), Lau-ma-tao-shan (老码头山), alt. 2240 m, T. H. Tu (杜大华) *4676*.

本变种和锈毛五叶参变种的区别在小叶下面密生棕色絨毛，叶柄和小叶柄密生棕色絨毛，伞形花序的苞片长圆形，先端渐尖，长 5 毫米，宽 2 毫米，花柱全部合生成为柱状体。

(3) **方氏变种** 新变种

var. **fangii** Hoo, var. nov.

A var. *henryi* differt rhachide paniculae dense cineraceo-tomentosa, fructu globoso minore, stylis persistentibus omnino connatis vel apice inconspicue liberis.

Szechuan: Kang-ting (康定), Wa-sze-shan (瓦斯乡), Oct. 7, 1951, C. Ho (何畴) *11381* (Type, HP).

本变种和锈毛五叶参变种不同处，在本变种圆锥花序的花轴密生白色绒毛，果实球形，较小，宿存花柱全部合生成柱状体或只先端柱头不明显的 2 裂，此外无其他差异。

披针五叶参 新种

Pentapanax lanceolatus Hoo, sp. nov.

Species similis *P. henryi* Harms qui differt foliolis minoribus, subtus praeter axillas nervorum lateralium tomentosas glabris, margine minute serratis. *P. castanopsidicola* Hayata differt habitu fruticoso, foliolis minoribus glabris vel subglabris, marginibus minute serrulatis, ramulis panicularum uniumbellatis, bracteis lineari-lanceolatis longioribus.

Arbor 7 m alta. Folia 3—5-foliolata; foliola sessilia vel subsessilia vel terminalia petiolulata (petiolulo ad 4 cm longo), leviter chartacea longe elliptica vel lanceolata 17—20 cm longa 6.5—7.5 cm lata apice breviter caudata basi late cuneata vel rotundata supra viridia glabra subtus parce puberula, ad nervos dense puberula, margine remote serrulata, serrulis apice setaceis, nervis lateralibus utrinsecus 12—14 conspicuis, venulis ultimis distinctis; petioli glabri 8—10 cm longi. Panicula fructifera ad 30 cm longa, ramis 4—10 cm longis dense griseo-brunneo-tomentosis; umbellae fructiferae 1—1.5 cm diametro, pedunculis dense villosis, bracteis ovatis membranaceis circ. 0.3 cm longis; flores albi, pedicellis 0.3—0.7 cm longis dense villosis, bracteolis ad basin pedicellorum linearibus circ. 2 mm longis, ad apicem pedicellorum lanceolatis minoribus 0.3—0.5 mm longis in circulem dispositis; calyx glaber 1 mm longus 5-dentatus, dentibus triangularibus apice acutis; petala 5 ovato-oblonga circ. 1.5 mm longa glabra; stamina 5; ovarium pentaloculare, stylis omnino connatis. Fructus globosus niger pentagonus circ. 5 mm longus, stylis persistentibus circ. 2 mm longis.

Szechuan: Tien-chuan (天全), alt. 1700 m, H. L. Chiang (蒋兴麐) *37577* (Type, HP).

本种和锈毛五叶参（*P. henryi* Harms）相近，区别在那种植物的小叶较小，下面除脉腋有簇毛外其余无毛，边缘密生锯齿。又和台湾五叶参（*P. castanopsidicola* Hay.）相近，区别在那种植物是灌木，小叶较小，无毛或几无毛，边缘有细密锯齿，圆锥花序的分枝只有 1 个伞形花序，苞片线状披针形，较长。

楤木属 Aralia Linn.

H. Harms[1] 将本属分为 6 组，我国仅有其中之 4 组，即土当归组（Sect. *Genuinus* Harms）、龙眼独活组（Sect. *Anomalae* Harms）、楤木组（Sect. *Arborescentes* Harms）和头序楤木组（Sect. *Capituligerae* Harms），前两组是草本植物，特点在土当归组具有总状圆锥花序，龙眼独活组具有伞房状圆锥花序，但楤木组即包含总状圆锥花序的木本种又包含伞

1) Harms, H., 1896, Bot. Jahrb. XXIII, 1—23.

房状圆锥花序的木本种。为了草本种和木本种能相适应同时更好的表征亲缘关系，应将楤木组也相应的分为两组，即楤木组（Sect. *Aralia*）包含总状圆锥花序的木本种，指序楤木组（Sect. *Digitatipanicula* Hoo, sect. nov.）包含指状或伞房状圆锥花序的木本种。如此，楤木属在我国共有5组，即：楤木组、指序楤木组、头序楤木组、土当归组和龙眼独活组。

组1. **楤木组**

Sect. 1. **Aralia**

灌木或小乔木，有刺，稀无刺，羽片基部有小叶1对，稀为小羽片1对；圆锥花序有长主轴，一级分枝在主轴上总状着生。

Frutex vel arbuscula aculeata vel raro inermis; folia 1—3-pinnata, rhachide folii ad basin pinnarum pari foliolorum vel raro pinnularum instructa; rhachis paniculae elongata, rhachillis dispositis racemosim.

Typus sectionis: *A. spinosa* Linn.

刺叶楤木 *A. spinifolia* Merr.

广东楤木 *A. armata* (Wall.) Seem.

刺茎楤木 *A. echinocaulis* Hand.-Mazz.

澜沧楤木 *A. lantsangensis* Hoo, sp. nov.

小叶楤木 *A. foliolosa* (Wall.) Seem.

鸟不企 *A. decaisneana* Hance

云南楤木 *A. thomsonii* Seem.

秀丽楤木 *A. elegans* C. N. Ho

楤木 *A. chinensis* Linn.

楤木变种 var. *chinensis*

白背叶变种 var. *unda* Nakai

毛叶变种 var. *dasyphylloides* Hand.-Mazz.

圆叶楤木 *A. caesia* Hand.-Mazz.

魏氏楤木 *A. wilsonii* Harms

羽叶楤木 *A. plumosa* Li

组2. **指序楤木组**

Sect. 2. **Digitatipanicula** Hoo, sect. nov.

灌木或乔木，有刺；羽片基部有小叶1对；圆锥花序的主轴短，一级分枝在主轴上指状排列或伞房状排列。

Frutex vel arbor aculeata; folia 1—3-pinnata, rhachide folii ad basin pinnarum pari foliolorum instructa; rhachis paniculae brevis, rhachillis digitato- vel corymboso-dispositis.

Typus sectionis: *A. elata* (Miq.) Seem.

波缘楤木 *A. undulata* Hand.-Mazz.

台湾楤木 *A. hypoleuca* Presl

湖北楤木 *A. hupehensis* Hoo, sp. nov.

辽东楤木 *A. elata* (Miq.) Seem.

糙叶楤木 *A. scaberula* Hoo, sp. nov.

粗毛楤木 *A. searelliana* Dunn

组 3. **头序楤木组**

Sect. 3. **Capituligerae** Harms, Bot. Jahrb. XXIII (1896) 19.

Typus sectionis: *A. dasyphylla* Miq.

毛叶楤木 *A. dasyphylla* Miq.

安徽楤木 *A. subcapitata* Hoo, sp. nov.

组 4. **土当归组**

Sect. 4. **Genninus** Harms, Bot. Jahrb. XXIII (1896) 15.

Typus sectionis: *A. cordata* Thunb.

丛枝土当归 *A. dumetorum* Hand.-Mazz.

西藏土当归 *A. tibetana* Hoo, sp. nov.

甘肃土当归 *A. kansuensis* Hoo, sp. nov.

南土当归 *A. cordata* Thunb.

北土当归 *A. continentalis* Kitagawa

组 5. **龙眼独活组**

Sect. 5. **Anomalae** Harms, Bot. Jahrb. XXIII (1896) 12.

Typus sectionis: *A. fargesii* Franch.

云南龙眼独活 *A. yunnanensis* Franch.

芹叶龙眼独活 *A. apioides* Hand.-Mazz.

浓紫龙眼独活 *A. atropurpurea* Franch.

龙眼独活 *A. fargesii* Franch.

小叶龙眼独活 *A. henryi* Harms

澜沧楤木 新种

Aralia lantsangensis Hoo, sp. nov.

Planta glabra, pedunculis pedicellisque gracilibus glabris vel subglabris distincta. Similis *A. folioloso* (Wall.) Seem. quae differt foliolis ellipticis vel oblongo-ovatis minoribus, floribus minoribus, bracteis oblongis longioribus.

Arbuscula 3.5 m alta glabra. Folia ampla bipinnata, pinnis 60 cm longis vel ultra, rhachide folii ad basin pinnarum pari foliolorum instructa, rhachidibus rhachillisque glabris parce aculeatis, aculeis circ. 1 mm longis; foliola 5—11 sessilia vel petiolulo mediano ad 3 cm longo leviter chartacea ovato-lanceolata 10—15 cm longa 4—5 cm lata, apice ionge acuminata basi cordata supra siccitate castanescentia glabra nitida ad nervos paucisetosa subtus brunneola glabra, margine crenato-serrata, serris apice setigeris, nervis lateralibus utrinsecus 8—10 elevatis distinctis, iis tertiariis supra indistinctis subtus subconspicuis. Panicula ampla, ramis ad 30 cm longis glabris, ramulis racemosis 10—16 cm longis; umbellae racemosim dispositae 10—15-florae 3—3.5 cm diametro, pedunculis gracili-

bus 2.5—4 cm longis glabris vel subglabris, bracteis lanceolatis margine ciliatis 5 mm longis; flores virideo-albidi, pedicellis gracilibus 10—15 mm longis glabris, bracteolis lanceolatis 1—3 mm longis margine ciliolatis; calyx obconicus glaber circ. 3 mm longus, margine 5-dentatus, dentibus triangularibus apice acutis; petala 5 oblongo-ovata circ. 2.5 mm longa glabra; stamina 5, filamentis 3 mm longis; ovarium pentaloculare, stylis erectis liberis. Fructus ignotus.

Yunnan: Ban-na-meng-wang (版纳勐往), alt. 730—800 m, in forest, Dec. 6, 1951, K. M. Feng (冯国楣) *14159* (Type, HP).

本种特点在植物体无毛，总花梗和花梗细长，无毛或几无毛。和小叶楤木[*A. foliolosa* (Wall.) Seem.] 相近，区别在那种植物的小叶椭圆形或长圆状卵形，较小，花较小，苞片长圆形，较长。

湖北楤木 新种

Aralia hupehensis Hoo, sp. nov.

Primo visu *A. chinensis* Linn. videtur quae differt rhachidibus panicularum longioribus, rhachillis racemosim dispositis, umbellis multifloris, bracteis longioribus, marginibus eciliatis.

Frutex vel arbor ad 12 m alta, ramulis luteo-brunneo-tomentosis, aculeatis, aculeis crassis basi tumidis 3—6 mm longis dense luteo-brunneo-tomentosis. Folia bipinnata, rhachidibus rhachillisque plus dense tomentosis; pinnae oppositae ad basin pari-foliolorum instructae, 9-foliolatae, foliolis chartaceis ovatis vel oblongo-ovatis 8—13 cm longis 3—6 cm latis apice longe acuminatis basi rotundatis supra scabridis subtus dense luteo-brunneo-tomentosis, margine serratis, serris apice setigeris, nervis lateralibus utrinsecus circ. 8 elevatis distinctis, venulis ultimis conspicuis; petioluli nulli vel ad 3 mm longi dense luteo-brunneo-tomentosi. Panicula terminalis, rhachidibus brevibus circ. 5 cm longis, rhachillis 2—5 digitato-dispositis 12—20 cm longis dense luteo-brunneo-tomentosis mox glabris, ramulis ultimis ad apicem rhachillarum verticillatim dispositis inferiore racemosim dispositis umbella solitaria terminalis vel inferiore 1—2 circ. 1.5 cm diametro 10—20-flora, pedunculo 0.7—1.5 cm longo dense tomentoso, bracteis lanceolatis membranaceis marginibus ciliatis 2—3 mm longis, pedicellis dense tomentosis 2—4 mm longis, bracteolis linearibus 1—2 mm longis marginibus ciliatis; flores albi; calyx campanulatus glaber circ. 1.5 mm longus margine 5-dentatus, dentibus triangularibus apice acutis; petala 5 deltoideo-ovata circ. 2 mm longa; stamina 5, filamentis circ. 2 mm longis; ovarium 5-loculare, stylis 5 liberis recurvis. Fructus globosus niger pentagonus 4 mm diametro.

Hupeh: Pa-tung (巴东), Jul. 18, 1957, K. S. Fu (傅国勋) et T. S. Chang (张志松) *718* (Type, HP); Kien-shin (建始), Kiu-ku-chiao (九股桥), tree 12 m high, Wu Han Univ. Herb. (武汉大学生物系) no. *1246*.

Szechuan: Wu-shan (巫山), Dang-yang-shang (当阳乡), alt. 1200 m, Jul. 28, 1958, K. H. Yang (杨光辉) *59035*.

本种初视之下易误认为楤木 (*A. chinensis* Linn.)，但那种植物的圆锥花序主轴长，

一级分枝在主轴上总状排列；伞形花序的花数也较多，苞片较长而边缘无纤毛，容易区别。

糙叶楤木　新种

Aralia scaberula Hoo, sp. nov.

Species foliolis chartaceis vel subcoriaceis praeter nervos scabridos glabris, venulis reticulatis elevatis, inflorescentiis corymboso-paniculatis, fructu breviter pedicellato valde distincta.

Frutex, ramulis cinereo-brunneis parce lenticellatis aculeatis, aculeis solitariis vel saepe paucis circum nodis parvis 1—2 mm longis basi tumidis. Folia bipinnata; petioli teretes graciles glabri saepe aculeati 15—20 cm longi basi ochreati, ocreis apice liberis lanceolatis circ. 5 mm longis margine ciliatis; pinnae 1—2-jugae ad basin rhachillarum cum binis foliolis instructae; foliola 3—5 chartacea vel subcoriacea oblongo-ovata vel raro ovata vel raro lanceolata vel saepe terminalia longe elliptica 6—12 cm longa 3—4.5 cm lata apice longe acuminata basi late cuneata vel rotundata praeter nervos utrinque scabridos glabra, margine argute serrata vel remote serrata, nervis lateralibus utrinsecus 8—10 elevatis distinctis, venulis tertiariis elevatis reticulatis; petioluli raro aculeati laterales sessiles vel ad 0.5 cm longi terminali ad 5 cm longo. Inflorescentia axillaris corymboso-paniculata circ. 15 cm longa 12 cm lata, rhachidibus brevibus circ. 1.5 cm longis, rhachillis 6 dense pubescentibus; umbellae ad apecem rhachillarum verticillatae ceterum racemosim dispositae 15—20-fructiferae, pedunculis 1—1.8 cm longis dense pubescentibus, bracteis ad basin pedunculorum lanceolatis dense pubescentibus 3—5 mm longis iis medifixis 2—3 minoribus; flores ignoti. Fructus globosus niger pentagonus circ. 5 mm longus 4 mm latus, stylis persistentibus 5 liberis recurvis, pedicellis dense pubescentibus 2 mm longis bracteolis ad basin pedicellorum ovatis circ. 1 mm longis.

Fukien: Without date, T. C. Liu (刘团举) *339* (Type, HP).

本种特点在小叶质地较厚，网脉隆起而明显，除沿脉疏生短糙毛外余无毛，花序为伞房状圆锥花序，果梗短，这些特点和其他指序楤木不同。

波缘楤木　补充记载

Aralia undulata Hang.-Mazz., Symb. Sin. VII (1933) 705.

Ad descriptionem fructus addenda:

Fructus adhuc indescriptus globosus niger pentagonus circ. 3 mm diametro, stylis persistentibus 5 liberis recurvis.

Kwangsi: Lung-sheng (龙胜), Pei-shui (白水), alt. 940 m, in forest, Oct. 1955, Lung-sheng Bot. Exped. (龙胜采集队) no. *1039* (HC).

粗毛楤木　补充记载

Aralia searelliana Dunn, Journ. Linn. Soc. Bot. XXXV (1903) 498.

Ad descriptionem fructus addenda:

Fructus globosus niger pentagonus circ. 3 mm diametro, stylis persistentibus 5 liberis,

pediculis 1—3 mm longis dense hirsutis.

Yunnan: Ho-kou (河口), alt. 1400 m, in forest, Jan. 21, 1933, H. T. Tsai (蔡希陶) *52642* (HP).

安徽楤木 新种

Aralia subcapitata Hoo, sp. nov.

Planta distincta foliolis minoribus, nervis reticulatis, paniculis laxis, rhachidibus rhachillisque puniceis, floribus sessilibus vel subsessilibus.

Arbuscula circ. 2 m alta, cortice pallido (e collectore) aculeato. Folia bipinnata cum petiolo circ. 60 cm longa glabra vel parce villosa aculeata, aculeis minutissimis praeter nodos longiusculis gracilibus, pinnis trijugis oppositis, ad basin pinnarum cum binis foliolis instructis; foliola 3—7 chartacea elliptica vel oblonga 3—7.5 cm longa 2—4 cm lata apice acuta vel breviter acuminata basi saepe obliqua late cuneata vel rotundata, nervis utrinque parce setosis subtus pubescentibus, margine serrata, serris apice setigeris, nervis lateralibus utrinsecus 4—6 distinctis, venulis tertiariis infra quam supra magis conspicuis; petioluli nulli vel ad 1.5 cm longi. Panicula laxa; capitula racemosim disposita circ. 10-flora, pedunculis puniceis pubescentibus 0.5—1 cm longis, bracteis lanceolatis apice acutis puniceis margine et basi pubescentibus circ. 3 mm longis; flores sessiles vel subsessiles, bracteolis lanceolatis puniceis circ. 1 mm longis; calyx obconicus glaber circ. 1.5 mm longus margine 5-dentatus, dentibus triangulari-ovatis apice obtusis; petala et stamina ignota; ovarium 5-loculare, stylis 5 liberis erectis circ. 0.8 mm longis. Fructus globosus nigro-purpureus pentagonus 4—5 mm longus et latus, pediculis ad 2 mm longis.

Anhwei: Without locality, small tree, prickly, berry black-purple, pedicel purple-red, Oct. 1, 1951, Hua-tung Herb. Loc. (华东工作站) no. *4569* (Type, HN).

Chekiang: Hang-chow (杭州), Ling-yen (灵隐), small tree 2 m high, bark pale, prickly, Sept. 27, 1957, S. Y. Chang (章绍尧) *1478*.

本种特点在小叶较小，有网状脉，圆锥花序稀疏，主轴和分枝紫红色，花无花梗或花梗很短等点，与其他楤木不同。

甘肃土当归 新种

Aralia kansuensis Hoo, sp. nov.

Species habitu *A. apioidei* Hand.-Mazz. similis quae differt foliolis incisis, inflorescentiis laxioribus corymboso-paniculatis.

Herba perennis erecta circ. 50 cm alta; rhizoma longiuscula. Folia 2—3-pinnata petiolata, petiolis 4—12 cm longis striatis parce pubescentibus; pinnae 3—9-foliolatae, foliolis membranaceis cordatis vel ovato-oblongis 3—5 cm longis 1—2.5 cm latis apice longe acuminatis basi rotundatis vel cordatis, nervis utrinque setosis, margine irregulariter biserratis, serris apice setosis, nervis lateralibus utrinsecus 5—7 infra quam supra magis conspicuis, venulis tertiariis obscuris vel subtus subconspicuis, petiolulis lateralibus nullis vel ad 10 mm longis terminalibus 5—15 mm longis villosis. Panicula terminalis conferta, rhachide elongata ramosa, rhachillis 15—20 cm longis; umbellae in ramulo rhachillae ver-

ticillatim vel raro racemosim dispositae 1—1.5 cm diametro 8—12-florae, pedunculo 1—2.5 cm longo dense villoso, bracteis lineari-lanceolatis vel ovato-lanceolatis circ. 15 mm longis, pedicellis villosis 2—5 mm longis; calyx glaber circ. 1 mm longus, lobis triangularibus circ. 0.5 mm longis; petala 5 ovata circ. 1 mm longa; stamina 5; ovarium 5-loculare, stylis 5 liberis vel infra medium connatis. Fructus globosus pentagonus immaturus circ. 3 mm diametro.

Kansu: Si-ho (西和), Hei-ku-kow (黑谷沟), alt. 3100 m, Jun., T. P. Wang (王作宾) *14444* (Type, HW).

本种外形和芹叶土当归 (*A. apioides* Hand.-Mazz.) 有些相似，但那种植物的小叶通常有深缺刻，圆锥花序的一级分枝为伞房状排列，较疏散等点和本种不同。

西藏土当归　新种

Aralia tibetana Hoo, sp. nov.

Planta habitu gracilibus, foliolis dimorphis, inflorescentia verticillato-paniculata, pedunculo pedicellisque gracilibus, calycis lobis oblongis apice obtusis distincta.

Herba gracilis. Folia in ramulis superioribus bipinnata 35—45 cm longa petiolata, petiolis elongatis striatis glabris 13—16 cm longis gracilibus; pinnae bijugae, 3—5-foliolatae, rhachidibus rhachillisque pubescentibus mox glabris; foliola membranacea terminale orbiculari-ovatum 5.5—7.5 cm longum 2.2—3.5 cm latum apice longe acuminatum basi rotundum vel subcordatum, lateralia rhomboideo-oblonga vel cordata basi plus minusve obliqua 3—6.5 cm longa 1.4—2.8 cm lata apice longe acuminata vel abrupte acuminata, margine serrulata, nervis sparse pubescentibus, iis lateralibus utrinsecus 5—8 supra obscuris subtus conspicuis, venulis ultimis supra inconspicuis subtus distinctis; petioluli laterales 3—7 mm longi pubescentes, terminalis ad 3 cm longus. Panicula terminalis circ. 30 cm longa dense pubescens, rhachidibus elongatis ramosis, rhachillis gracilibus 2—4.5 cm longis dense pubescentibus ad basin rhachis racemosim dispositis superioribus verticillatim dispositis; umbellae 1—3 in rhachilla racemosim dispositae 2—2.5 cm diametro multiflorae, pedunculo gracili 1—2 cm longo dense pubescenti, bracteis subulatis extus dense pubescentibus 2 mm longis; flores albi, pedicellis gracilibus dense pubescentibus 0.8—1 cm longis, bracteolis linearibus circ. 1 mm longis; calyx glaber 1.5 mm longus 5-dentatus, dentibus oblongis apice obtusis, circ. 1 mm longis 0.2 mm latis; petala 5 ovata 1.8 mm longa; stamina 5, antheris oblongis 1 mm longis, filamentis 3 mm longis; ovarium 5-loculare, stylis 5 parte inferiore 1/3 connatis, sursum liberis. Fructus ignotus.

Tibet: Rung-sa (绒辖), alt. 3100 m, under forest of Tsuga, herb 0.8—1 m high, Aug. 2, 1959, Mt. Jolmo Lungma Exped. (珠穆朗玛峯考察队) no. *758* (Type, HP).

本种植物体细弱，小叶二型，圆锥花序分枝輪生，总花梗和花梗细长，萼齿长圆形，先端钝等点和其他种土当归不同。

云南龙眼独活

Aralia yunnanensis Franch. Journ. de Bot. X (1896) 303.

Aralia fargesii auct. non Franch.: Li, Sargentia II (1942) 103, pro parte.

Aralia fargesii var. *yunnanensis* (Franch.) Li, Sargentia II (1942) 103, *Syn. nov.*

李惠林氏虽然正确的指出 Franchet 氏的云南龙眼独活包含两种不同的模式标本，并指定其中的草本种为本种模式标本，但另一方面他又将云南龙眼独活并入龙眼独活(*A. fargesii* Franch.)中作为变种，显然他把这两个种混淆起来了，这一点可从他把 T. T. Yu *14050* 号标本定名为 *A. fargesii* Franch. (实为 *A. Yunnanensis* Franch.) 而得知。两者是完全不同的种，不能归并的，云南龙眼独活的地下茎短而直立，小叶较小(长 2—7 厘米、宽 1.4—4.5 厘米)、坚紙质、下面灰白色，花梗较长(长 5—6 毫米)。龙眼独活的地下茎厚而长，小叶较大(长 8—15 厘米、宽 5—7 厘米)、膜质、下面淡绿色，花梗短(长 2—5 毫米)。

Summary

The present paper is a result of taxonomic study of Chinese Araliaceous plants. It contains 56 species 25 varieties and 8 forms ascribed to 10 genera of the family, of which 35 species, 14 varieties and 5 forms are described as new. Besides, 7 new sections and 5 subsections are proposed and 2 new combinations made, whereas 8 species and 3 varieties previously known to botanists as distinct are here reduced to synonyms. Descriptions of flowers and fruits from complete flowering and fruiting specimens are added as supplements to 8 previously known species. Discussions on systems of the subdivisions in the genera *Schefflera, Dendropanax* and *Aralia* are presented. Most of the type specimens are preserved in the Herbarium of Institute of Botany, Academia Sinica, Peking, and a few in the Herbaria of South China instituta of Botany, Yunnan Institute of Botany, Nanking Institute of Botany, Northwestern Institute of Soil-water Conservation, Biology and Pedology, Academia Sinica, and the Institute of Materia Medica, Chinese Academy of Medical Sciences.